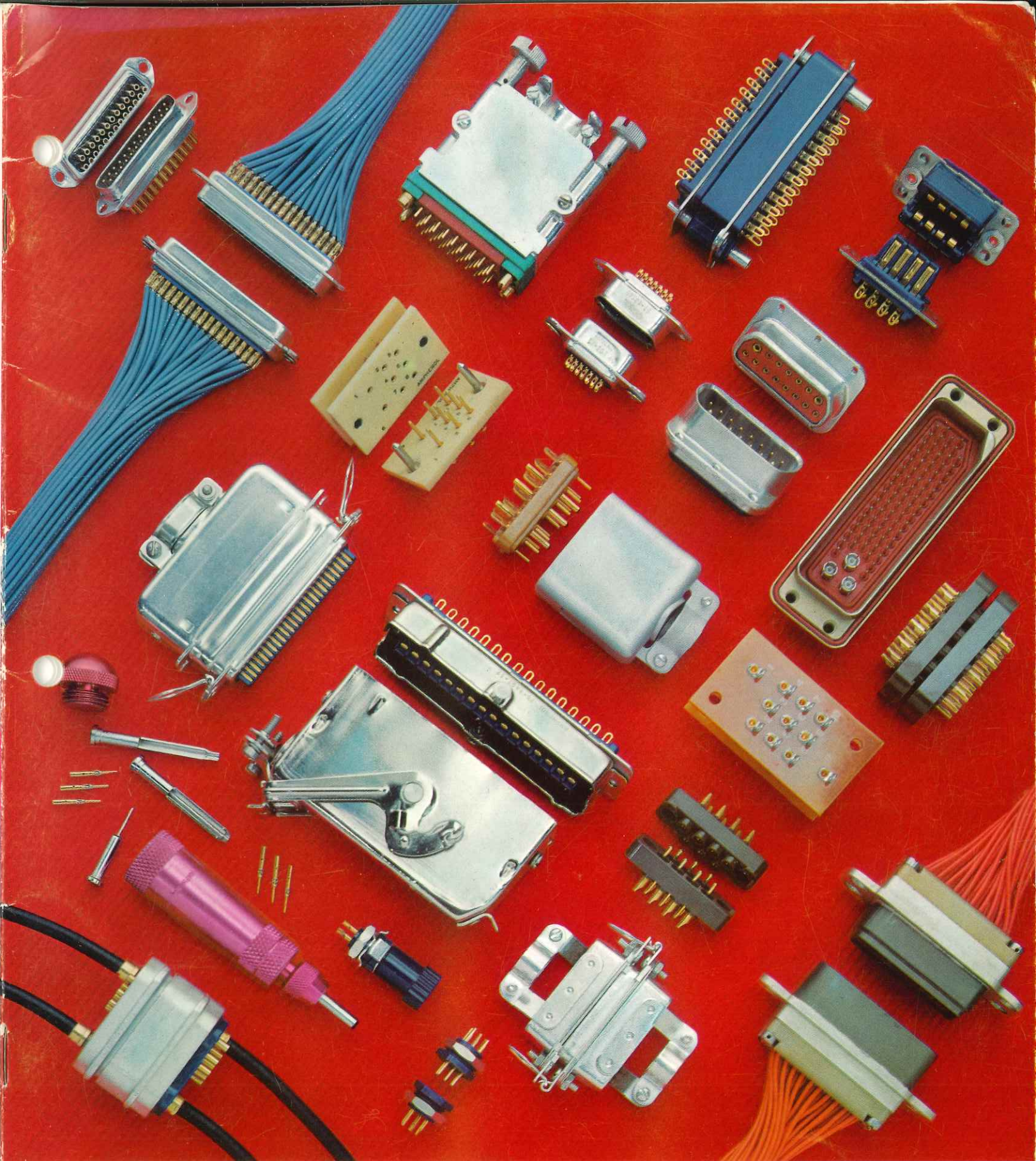




AMPHENOL **X-26** Rack and Panel Connectors

Rec'd 9/8/67

CATALOG
RP-2

CHOOSING THE *RIGHT* CONNECTOR FOR YOUR RACK AND PANEL NEEDS

AMPHENOL rack and panel connectors come in a multitude of different sizes, shapes, and shell styles, with different numbers and types of contacts. They offer many options in contact density, environmental resistance, suitability for cable interconnection, features, and price. This vast array enables you to choose an AMPHENOL rack and panel connector to fit your requirements fully.

Take environmental resistance, for example. For critical applications where top performance is required under the most severe conditions, the 217 Series is unequalled. Where environmental conditions are less rigorous, 126 Series CNI connectors are outstanding. Hermetically sealed connectors are available in the 17 and 26 Series.

Choice of contact types is practically unlimited. Versatile, reliable Poke-Home contacts are featured in the 17, 93, 94, and 217 Series; micro-miniature Poke-Home contacts are used in the 220 and 223 Series; positive-contact, standard-size ribbon contacts are offered in the 26 Series and miniatures in the 57 Series and Flat Cable connector 218 Series; molded-in contacts are available in the 126 Series; staked-in contacts are found in the 305 and 306 Series. Coaxial contacts come in the 94, 126 CNI,

217, 305, and 306 Series. The number of contacts in a single connector ranges from 4 in 126 Series miniature hex connectors to 102 in 217 Series connectors. As many as 300 are available in special configurations.

Housings for cable-to-chassis and cable-to-cable applications are available in the 17, 26, 57, 93, 94, and 126 Series. Various provisions for locking connectors are offered in the 26, 57, 93, 126, 217, and 218 Series. The 218 Series provides practical, efficient connectors for flexible, flat cable.

Options in terminations, contact platings, shell finishes, dielectric materials, mountings, electric ratings, and other features are also available. They are all listed in the pages of this catalog.

You can even make up new power and coax connector configurations, quickly and economically. These are in the 305 and 306 Series, described on page 19.

If you should have some specialized rack and panel connector requirements not covered in this catalog, AMPHENOL engineers will adapt or custom engineer connectors for your purposes, as they have for hundreds of others. Write to AMPHENOL.

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Miniature Environment Resistant Connectors — 217 SERIES

A Significant Advance In The State-of-the-Art

On the ground or in space, wherever there is a requirement for superior environmental protection, high performance, and minimum weight and bulk, 217 Series miniature environment resistant connectors are the answer.

In developing the 217 Series, AMPHENOL faced the problem of satisfying reliability, logistics, and present and anticipated environmental requirements for connector usage. To solve the problem, AMPHENOL had to generate advanced design concepts, formulate materials specifically for connector usage, and work out new production techniques. The resulting 217 Series connectors exceed the stringent requirements of both MIL-C-26518 (USAF) and MIL-C-38300 (USAF) for performance and reliability.

TWO VERSIONS—217 Series connectors are available in two different versions:

1. Both mating faces in silicone rubber, conforming to MIL-C-26518 (USAF).
2. The plug (with socket contacts) incorporating the AMPHENOL Ultra-Mate® principle—a hard dielectric face conforming to MIL-C-38300 (USAF).

Since the receptacle (with pin contacts) is identical in both versions, there is complete inter-mateability with either the standard resilient plug or the Ultra-Mate.

COMPLETE ENVIRONMENTAL SEALING—Monoblock construction, with bonded interfaces between the three dielectric components (insert, anti-deflection disc, and grommet) eliminates air voids and protects connectors from degrading moisture and altitude conditions. AMPHENOL-developed silicone rubber dielectric provides resilience and unsurpassed resistance to tear, compression set, fluids, and high temperatures. On mating, insert faces compress to form a resilient dielectric seal around each individual contact. Together with monoblock construction, this puts void-free, continuous dielectric around each contact through the entire connector length.

A pressurizing seal around each contact prevents the passage of air or moisture through the contact hole, and twin sealing risers at each wire hole in the grommet double-seal each individual wire. A continuous barrier on the periphery of the socket insert mates with a recess around the pin insert to form an additional compression seal. A dynamic lip seal between mated shells constitutes still another barrier to dirt and moisture, and protects the integrity of the face seals.

GO/NO-GO RELIABILITY—When an Ultra-Mate connector mates, you can be sure there is proper electrical contact. In Ultra-Mate connectors of the 217 Series, the socket contacts are closely surrounded by hard dielectric. Where connector pins are slightly misaligned, the beveled entry of Ultra-Mate connectors guides them in right. However, if the pins are badly bent, the hard dielectric presents a



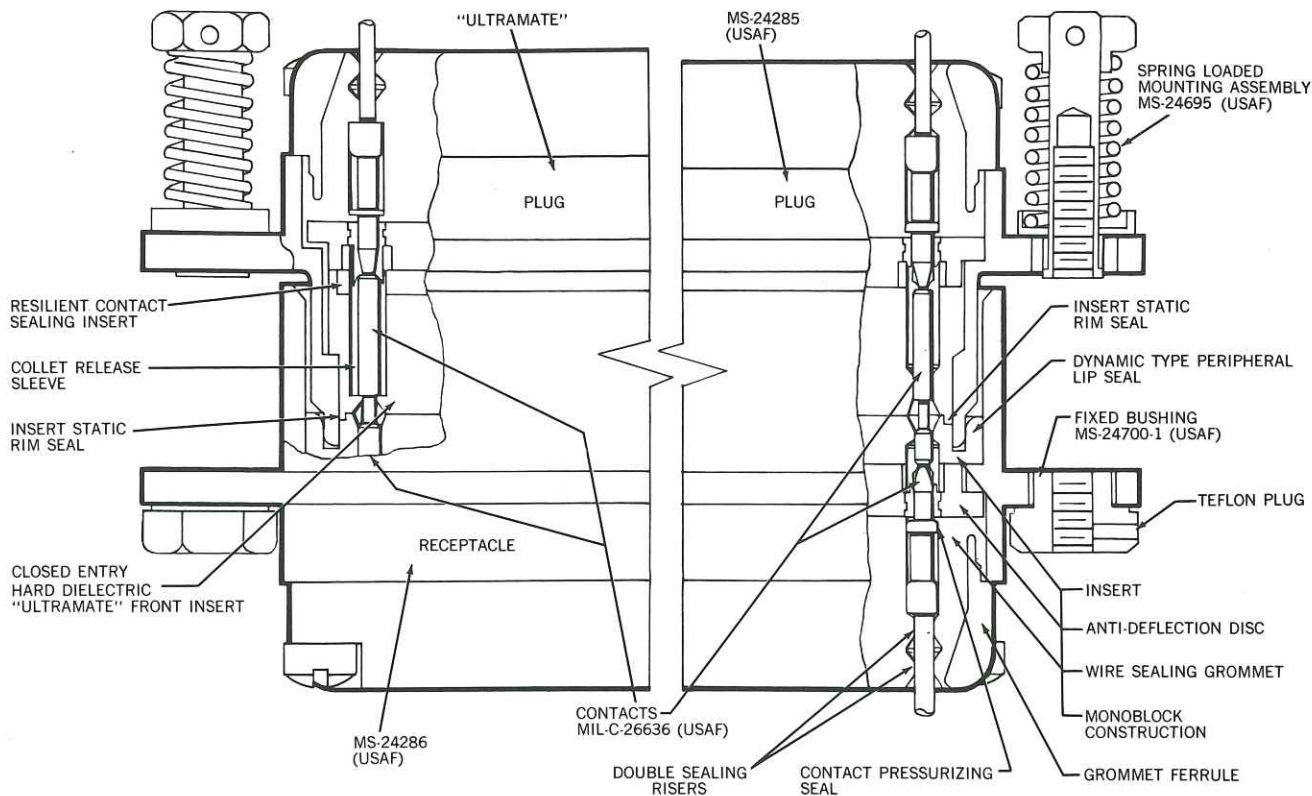
closed entry and prevents mating. To insure contact seal, there is an additional resilient layer behind the hard face.

LIGHT WEIGHT AND HIGH CONTACT DENSITY—Connector shells are of high-strength, impact-extruded aluminum forgings with a high strength-to-weight ratio. The insert arrangement is designed for the maximum number of contacts within the area available.

POKE-HOME® CONTACTS—The Poke-Home contacts can be individually inserted or removed without disassembling the connector or disturbing adjacent contacts. Even in the Ultra-Mate connectors, which have a hard dielectric face, they can be released from the front. These high temperature, MIL-C-26636 contacts are crimped quickly, consistently, and reliably with either hand or power tools, shown on page 14. They have high electrical conductivity, present a smooth configuration, and completely protect electrical contact pressure-members from environmental and handling damage. The contacts come in sizes 12, 16, 20, and shielded, with rhodium-over-silver plating.

VARIETY OF CONFIGURATIONS—Plugs and receptacles are available in two shell sizes with various contact arrangements. Contacts are crimp applied. Connectors are mated under tension by dual spring-loaded mounting assemblies and fixed bushings. Either the plug or the receptacle may be spring loaded. The receptacle mounts on the panel front or rear.

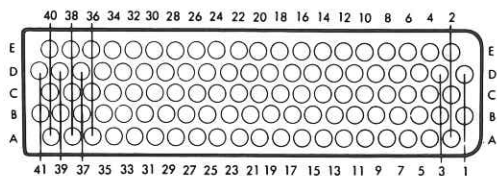
217 SERIES



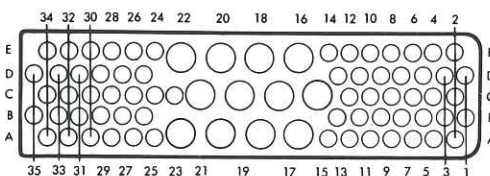
217 SERIES ULTRAMATE & MIL-C-26518 RACK & PANEL CONNECTORS
EMPLOYING MIL-C-26636 (USAF) CRIMP CONTACTS

Available Insert Arrangements — Showing Rear Face of Pin Inserts

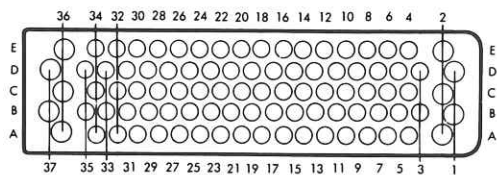
SIZE A SHELL



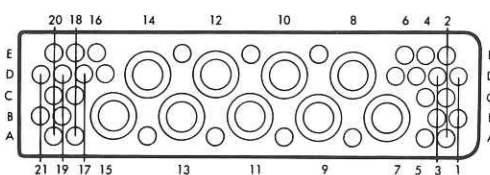
102—SIZE NO. 20 CONTACTS



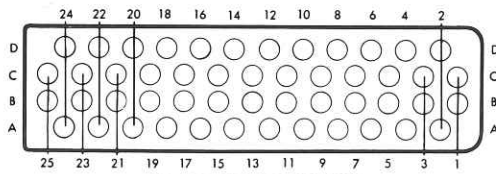
65—SIZE NO. 20 CONTACTS
*12—SIZE NO. 12 CONTACTS



82—SIZE NO. 20 CONTACTS
10—SIZE NO. 16 CONTACTS

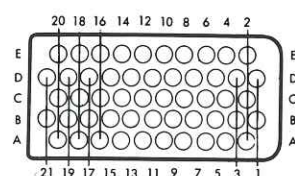


33—SIZE NO. 20 CONTACTS
9—SIZE NO. 2 SHIELDED CONTACTS

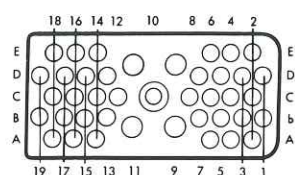


50—SIZE NO. 16 CONTACTS

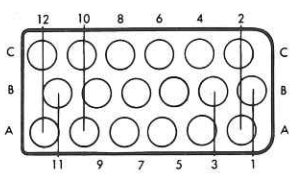
SIZE B SHELL



52—SIZE NO. 20 CONTACTS



36—SIZE NO. 20 CONTACTS
4—SIZE NO. 16 CONTACTS
* 1—SIZE NO. 1 SHIELDED CONTACT



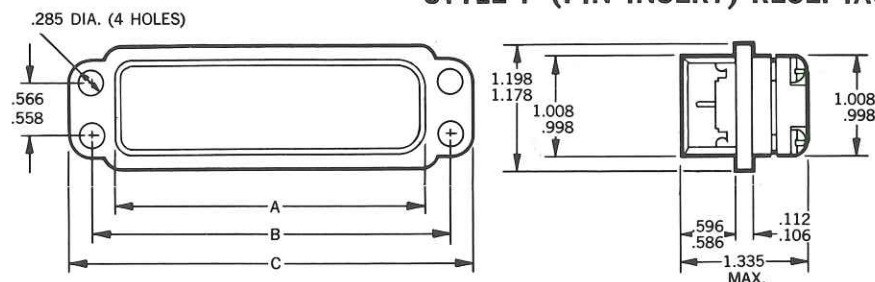
*18—SIZE NO. 12 CONTACTS

Performance Characteristics

TEST	SPECIFICATION REQUIREMENTS	TEST RESULTS
Dielectric Withstanding Voltage (Mated)	No flashover at 1500 volts AC(RMS) at sea level, 1250 volts AC(RMS) at 10,000 feet altitude, and 1000 volts AC(RMS) at 110,000 feet altitude.	No flashover was evident at 1500, 1250, and 1000 volts AC(RMS) when tested at the respective altitudes.
Dielectric Withstanding Voltage (Unmated)	No flashover at 1500 volts AC(RMS) at sea level, 1250 volts AC(RMS) at 10,000 feet altitude and 200 volts AC(RMS) at 110,000 feet altitude.	No flashover was evident at 1500, 1250, and 200 volts AC(RMS) when tested at the respective altitudes.
Insulation Resistance	5,000 Megohms minimum insulation resistance at room temperature, 2,000 megohms insulation resistance at 500°F.	500,000 Megohms minimum insulation resistance at room temperature, and 12,000 megohms minimum insulation resistance at 500°F.
Temperature Life	Must carry specified current for 1000 hours.	Connectors did carry specified current for 1000 hours, and will pass remaining specification test.
Thermal Shock	Connectors must be subjected to 5 cycles of -67°F to +500°F, and be capable of passing remaining specification requirements.	The connectors met or exceeded specification requirements after subjection to thermal shock.
Physical Shock	Subject to 50 gravity units transient.	Passed all subsequent tests after subjection to gravity units transient.
Vibration	15 G's for 3 hours at 392°F. 15 G's for 3 hours at -67°F.	No discontinuity or damage occurred during this test.
Air Leakage	With a 30 PSI pressure differential across the connector during exposure to extremes of high and low temperature the connectors shall show evidence of not more than 1 cubic in./hr. leakage.	No detectable leak was observed.
Moisture Resistance	Per MIL-STD-202, method 106, maintain 1000 megohms minimum insulation resistance.	Connectors maintained 6000 megohms minimum insulation resistance.
Altitude Immersion	Three (3) cycles).	Maintains 10,500 megohms insulation resistance and 1,500 VAC(RMS) applied potential.
Corrosion	50 Hours salt spray.	No base metal exposed.
Fluid Immersion	20 Hour immersion in MIL-L-9236 aviation lubricating oil and MIL-H-5606 hydraulic fluid.	Connectors can be properly mated and unmated, and no flashover occurred when 1500 VAC(RMS) was applied at sea level.
Ozone Exposure	.010/.015% by volume for 2 hours.	No cracking or damage occurred to the connector dielectrics.
Maintenance Aging	10 Insertions and removals of the contacts.	No damage occurred to contacts or connectors.
Removable Contact Retention	20 Lbs. minimum after 10 cycles, size 20. 25 Lbs. minimum after 10 cycles, size 16. 30 Lbs. minimum after 10 cycles, size 12.	Contacts held specified axial load after 10 cycles.
Contact Insertion Force	8 Pounds maximum	7 Pounds 4 oz. maximum
Contact Deflection	.012 Inches maximum displacement when specified load is applied from front.	Contacts held specified axial load after 10 cycles.
Coupling Durability	500 Mating Cycles	No damage detrimental to the operation of the connector.
Mating and Unmating Forces	Maximum mating or unmating force: Size A, 60 Lbs.; Size B, 40 Lbs.; Size C, 25 Lbs.	Connectors meet MIL-C-26518B (USAF) requirements.
Sand and Dust exposure	Per MIL-E-5272 condition B	No damage occurred.

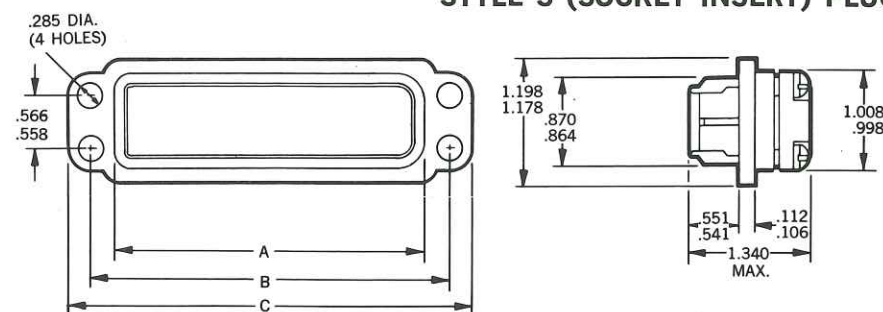
217 SERIES—Dimensions and Installation Data

STYLE P (PIN INSERT) RECEPTACLES



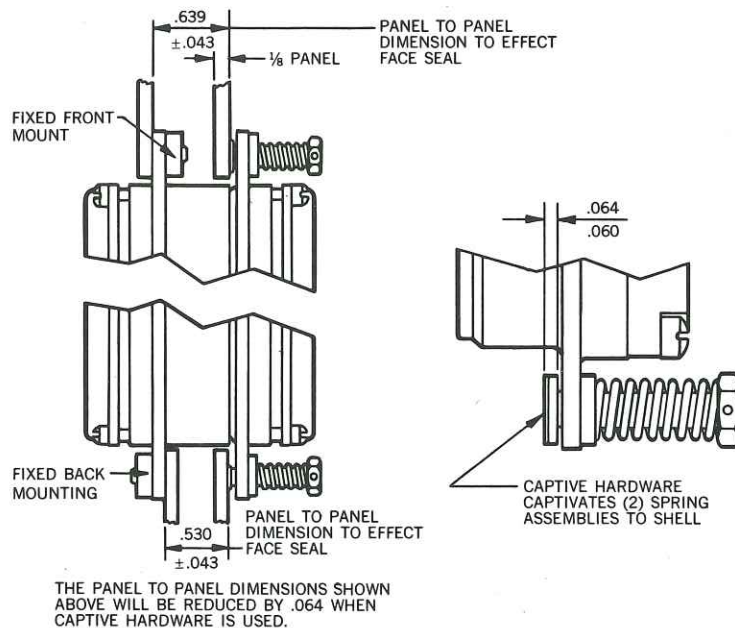
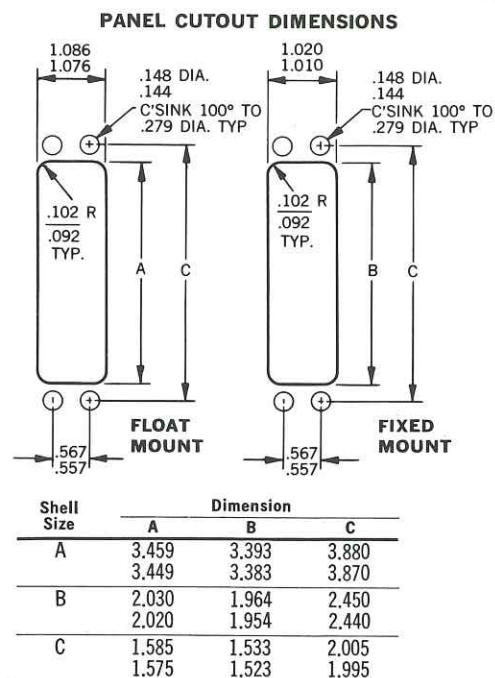
Shell Size	A ± .005	B ± .004	C ± .005
A	3.375	3.875	4.296
B	1.945	2.445	2.866
C	1.516	2.000	2.421

STYLE S (SOCKET INSERT) PLUGS



Shell Size	A ± .005	B ± .004	C ± .005
A	3.239	3.875	4.296
B	1.809	2.445	2.866
C	1.380	2.000	2.421

MOUNTING DIMENSIONS



INSERTION AND REMOVAL TOOLS

Insertion Tool Part No.			Removal Tool Part No.			Ultra-Mate Contact Removal Tool	
AMPHENOL	MS	Contact Size	AMPHENOL	MS	MS	AMPHENOL	Part No.
294-88	24156A-20	#20	294-89	24256R-20	24256RH-20	294-203	
294-96	24256A-16	#16	294-97	24256R-16	24256RH-16	294-180	
294-72	24256A-12	#12, #1 Shielded	294-73	24256R-12	—	294-183	
294-128	—	#2 Shielded	294-127	—	—	294-184	
		#20 Full Cycle Tool				294-185	

Shielded Contacts—can be crimped with the following tools:

	Tool#	Positioner#
#1 Shielded	294-211	294-1342
#2 Shielded	294-358	294-1015

An MS 3191-1 tool can be used for crimping #2 shielded contacts if a 294-1014 positioner is added. The outer ferrule on both #1 and #2 shielded contacts can be crimped with a Thomas and Betts WT-202 Crimp Tool.

How to Order 217 Series Connectors

The part numbering system has been set up to provide a complete and exact description through the part number. To find the AMPHENOL part number to order, put together the four groups of digits and letters that specify the particular 217 Series connector you want, as per the following example.

217-24C-A077S-10

SERIES DESIGNATION 217—			COMPONENTS INCLUDED 0 Plug or Receptacle Connector <i>with</i> contacts and spare sealing plugs. 1 Plug or Receptacle Connector <i>without</i> contacts. 2 Connector with captive retainer and spring mounting assemblies assembled to connector <i>without</i> contacts. 3 Same as 2 except <i>with</i> contacts included, packaged separately. 4 Connector, <i>without</i> contacts, with retainer nuts (MS* Fixed bushing) packaged separately. 5 Same as 4 except <i>with</i> contacts included, packaged separately. 6 Connector, <i>without</i> contacts, with spring loaded mounting assembly (MS**) packaged separately. 7 Same as 6 except <i>with</i> contacts included, packaged separately. *Fixed Bushing: MS No. AMPHENOL No. MS 24700-1 217-537 **Spring Loaded Mounting Assembly: MS 24695-1 217-678 (A Size) MS 24695-2 217-679 (B Size)																																																								
SHELL AND CONTACT TYPE Use number in appropriate column below. <table border="1"> <thead> <tr> <th>Socket Contacts (Plug)</th> <th>Pin Contacts (Receptacle)</th> <th>Number of Contacts</th> </tr> </thead> <tbody> <tr><td>20</td><td>21</td><td>102</td></tr> <tr><td>22</td><td>23</td><td>92</td></tr> <tr><td>24</td><td>25</td><td>77</td></tr> <tr><td>28</td><td>29</td><td>52</td></tr> <tr><td>32</td><td>33</td><td>18</td></tr> <tr><td>48</td><td>49</td><td>50</td></tr> <tr><td>50</td><td>51</td><td>42</td></tr> <tr><td>54</td><td>55</td><td>41</td></tr> </tbody> </table>			Socket Contacts (Plug)	Pin Contacts (Receptacle)	Number of Contacts	20	21	102	22	23	92	24	25	77	28	29	52	32	33	18	48	49	50	50	51	42	54	55	41																														
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INSERT CONSTRUCTION C—Closed Entry, Hard Dielectric, Ultra-Mate R—Resilient Front H—Hermetic Seal (Consult factory for details on Hermetic Seal)																																																											
SHELL SIZE A, B, or C (Consult factory for details on C size.)																																																											
TOTAL NUMBER OF CONTACTS <table border="1"> <thead> <tr> <th></th> <th>#20</th> <th>#16</th> <th>#12</th> <th>No. 1 Shielded</th> <th>No. 2 Shielded</th> </tr> </thead> <tbody> <tr><td>102</td><td>102</td><td></td><td></td><td></td><td></td></tr> <tr><td>092</td><td>82</td><td>10</td><td></td><td></td><td></td></tr> <tr><td>077</td><td>65</td><td></td><td>12</td><td></td><td></td></tr> <tr><td>052</td><td>52</td><td></td><td></td><td></td><td></td></tr> <tr><td>018</td><td></td><td></td><td>18</td><td></td><td></td></tr> <tr><td>042</td><td>33</td><td></td><td></td><td></td><td>9</td></tr> <tr><td>041</td><td>36</td><td>4</td><td></td><td>1</td><td></td></tr> <tr><td>050</td><td></td><td>50</td><td></td><td></td><td></td></tr> </tbody> </table>				#20	#16	#12	No. 1 Shielded	No. 2 Shielded	102	102					092	82	10				077	65		12			052	52					018			18			042	33				9	041	36	4		1		050		50				TYPE OF CONTACT P—Pin S—Socket C—Solder Cup* E—Flattened and Pierced* *Applicable to Hermetic Seal only.		
	#20	#16	#12	No. 1 Shielded	No. 2 Shielded																																																						
102	102																																																										
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018			18																																																								
042	33				9																																																						
041	36	4		1																																																							
050		50																																																									
			SHELL FINISH 1 MIL-C-26518 hard coat anodize on front of shell, gold iridite on flange and on grommet ferrule 5 Gold Iridite 6 Black Anodize																																																								

Contact Data

Contact Size	Max. Current Rating	Wire Size	AMPHENOL Part No.		MS Part No.	
			Pin	Socket	Pin	Socket
No. 20	7.5 amps	24-22-20 AWG	48-1595-02	48-100-2000S-02	MS24254-20P	MS24255-20S
No. 16	22 amps	18-16 AWG	48-1825-02	48-100-1600S-02	MS24254-16P	MS24255-16S
No. 12	41 amps	14-12 AWG	48-1827-02	48-1215-02	MS24254-12P	MS24255-12S
No. 1 (shielded)*						
Resilient	3 amps	**	48-1226-02	48-1227-02	MS27184-22P	MS27185-22S
Hard Front	3 amps	**	—	48-1227-50	—	MS27450-22S
No. 2 (shielded)						
Resilient	7.5 amps	***	48-2187-02	48-2188-02	MS27184-20P	MS27185-20S
Hard Front	1 amp	RG-195/U	48-2187-50	48-2188-50	—	—

*Replaces No. 12 power contact.

Can accommodate cables RG179/U, RG179A/U, RG187/U, RG188/U and RG161/U as well as shielded contacts. Cables RG195/U, RG178/U, RG178A/U and RG196/U can also be accommodated with modification to shielded contacts.

**Cable MIL-C-27500-22KIN6 (Extruded) or 22 AWG per MIL-C-7078 type II.

***Cable MIL-C-27500-22KIN6; 20KIN6; 18KIN6 (Extruded) or 22, 20, 18 AWG per MIL-C-7078 type II.

17 SERIES — MinRac 17® Miniature Connectors**Specifications****STANDARD**

Temperature Range: -55°C to $+125^{\circ}\text{C}$
Current Rating: 7.5 amps max.
Voltage Rating: 500 VAC (RMS) at Sea Level
150 VAC (RMS) at 90,000'
Shells: Cadmium plated cold rolled steel
Contacts: Crimp—Gold-over-silver plated silnic bronze
Solder—Gold-over-silver plated brass
Dielectric: Zytel 101
Wire Size: Solder: Up to #20; Crimp: #20, #22, and #24 AWG

HARD DIELECTRIC

Temperature Range: -55°C to $+175^{\circ}\text{C}$
Current Rating: 7.5 amps max.
Voltage Rating: 500 VAC (RMS) at Sea Level
150 VAC (RMS) at 90,000'
Shells: Cadmium plated cold rolled steel
Contacts: Crimp—Gold-over-silver plated silnic bronze
Solder—Gold-over-silver plated leaded copper
Dielectric: Diallyl Phthalate, glass filled per MIL-M-19833
Type GDI 30
Wire Size: Solder: Up to #20; Crimp: #20, #22, and #24 AWG
Float Bushings: .030" float

HERMETIC

Meet or exceed all requirements of SCL-6020, including:
Temperature Range: -55°C to $+125^{\circ}\text{C}$
Voltage Rating: 500 VAC (RMS)
Current Rating: 5 amps
Dielectric: Amphenol compression glass
Corrosion Resistance: Per Mil. Std. 202, method 101
condition B
Vibration: Per Mil. Std. 202, method 204, condition A
Leakage: Less than 1 micron cu. ft. per hour @ 14.7 psi
pressure differential
Hi Pot: No flashover @ 1000 VAC (RMS) per Mil. Std. 202,
method 301
Physical Shock: Force equivalent to 50 gravity units applied
in each of the 3 major axes caused no major
physical damage
Thermal Shock: Five cyclings between -55°C and $+125^{\circ}\text{C}$
caused no damage
Insulation Resistance: 100,000 megohms min., contact to
contact and contact to shell.

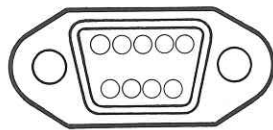
**Poke-Home Solder or Crimp,
Standard, Hard Dielectric, or Hermetic—
All Save Space and Weight**

Whenever a lightweight, high-contact-density connector is needed, one of the 17 Series is most likely to fill the bill. With standard, hard dielectric, and hermetically sealed styles, and with provisions for rack and panel, cable-to-chassis, and cable-to-cable applications, this family of high reliability connectors meets practically every miniature connector requirement.

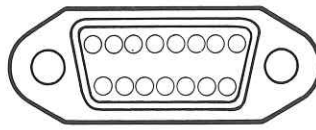
Five different contact configurations are available, as well as various contact and shell platings. All versions of the connectors—standard, hard dielectric, and hermetically sealed—are completely interchangeable with other miniature connectors of similar construction and style now in use. The trapezoidal polarizing can insures proper mating.

Best of all, the standard and hard dielectric styles use Poke-Home contacts to increase reliability and simplify circuit changes. With Poke-Home contacts, leads are soldered or crimped away from the connector, then inspected and inserted for final assembly. Reliability is markedly increased because contact terminations are uniform and can be readily inspected. Circuit changes are greatly simplified because Poke-Home contacts can be removed from the connector for rewiring or replacement at any time. Poke-Home tools and procedures are shown on pages 14 and 15.

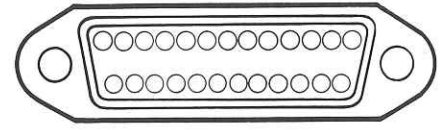
Contact Arrangements



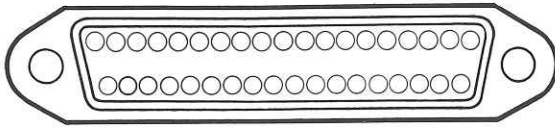
9 CONTACTS



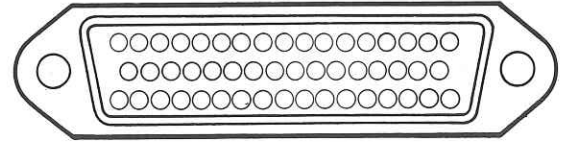
15 CONTACTS



25 CONTACTS

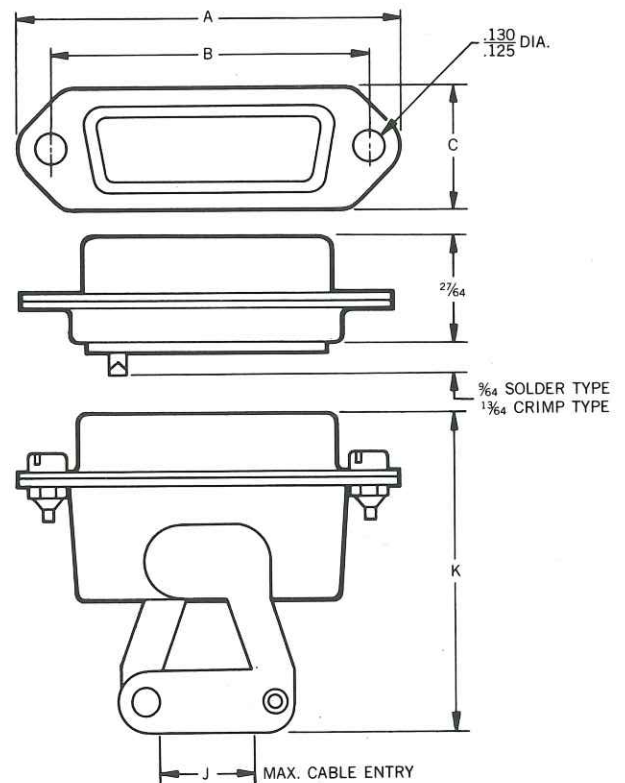
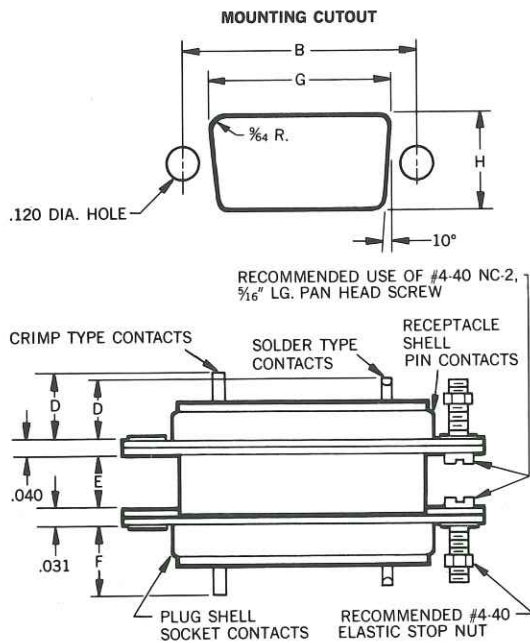


37 CONTACTS



50 CONTACTS

Dimensions

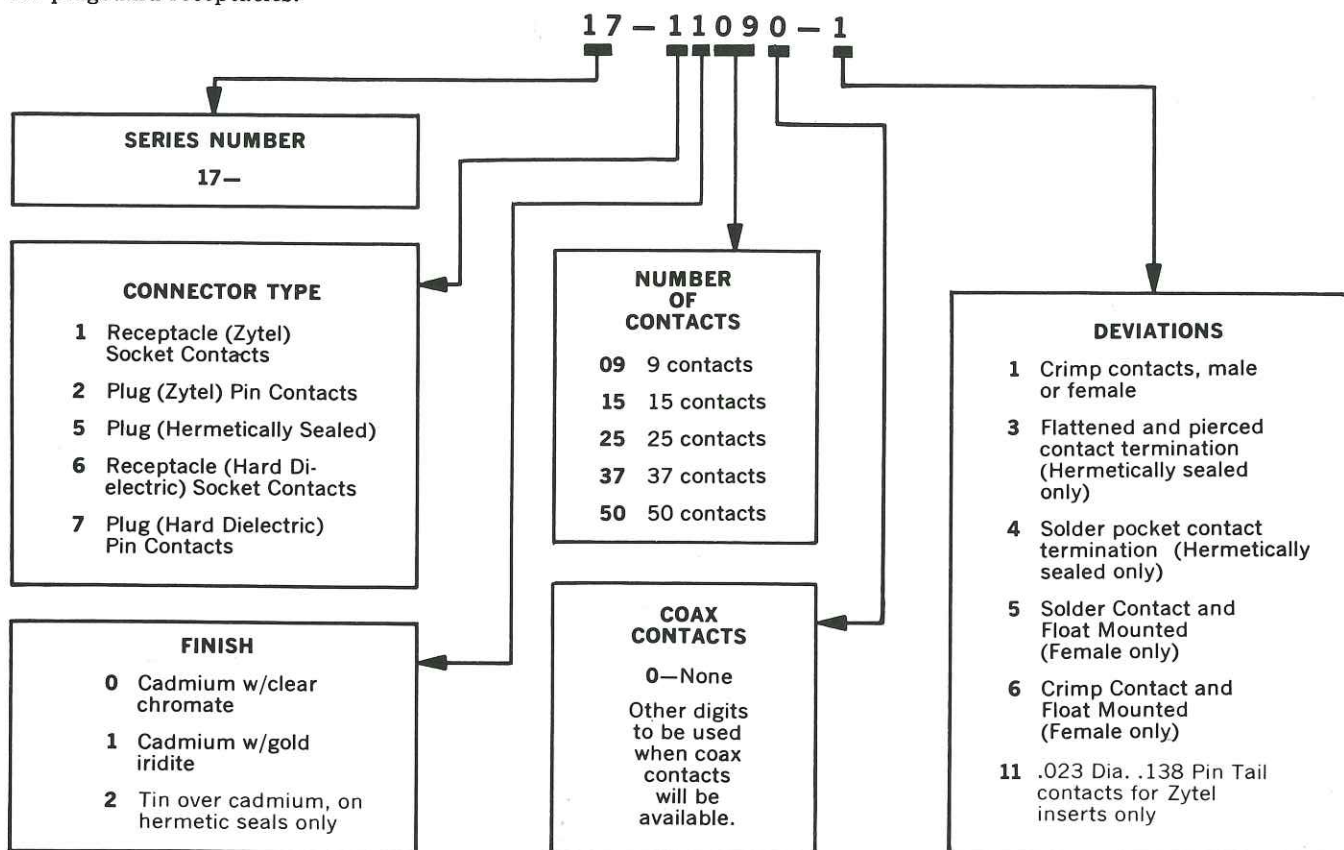


Contacts	A Max.	B	C Max.	D		E	F		G	H	J	K
				Crimp	Solder		Crimp	Solder				
9	1.239	.984	.515	2 ¹ / ₆₄	1 ⁷ / ₆₄	1 ⁵ / ₆₄	1 ¹ / ₃₂	9 ⁹ / ₃₂	.787	.458	1 ³ / ₃₂	1 ²¹ / ₆₄
15	1.567	1.312	.515	2 ¹ / ₆₄	1 ⁷ / ₆₄	1 ⁵ / ₆₄	1 ¹ / ₃₂	9 ⁹ / ₃₂	1.115	.458	1 ³ / ₃₂	1 ²¹ / ₆₄
25	2.109	1.852	.515	2 ¹ / ₆₄	1 ⁷ / ₆₄	1 ⁵ / ₆₄	1 ¹ / ₃₂	9 ⁹ / ₃₂	1.654	.458	1 ⁹ / ₃₂	1 ²³ / ₆₄
37	2.754	2.500	.515	2 ¹ / ₆₄	1 ⁷ / ₆₄	1 ⁵ / ₆₄	1 ¹ / ₃₂	9 ⁹ / ₃₂	2.302	.458	2 ³ / ₃₂	1 ²³ / ₆₄
50	2.661	2.406	.645	2 ¹ / ₆₄	1 ⁷ / ₆₄	1 ⁵ / ₆₄	1 ¹ / ₃₂	9 ⁹ / ₃₂	2.208	.564	1 ³ / ₁₆	1 ²³ / ₆₄

How to Order 17 Series Connectors

To get the 17 Series connector you want, put together the part number according to the following chart. For example, if you want a 37-contact plug with gold iridite finish, Zytel 101 dielectric, and solder contacts, order 17-21370. To get the same plug hermetically sealed, order 17-51370-4.

For 17 Series cable-to-chassis and cable-to-cable connectors, available with standard and hard dielectric types, order a cable housing as per the table below, for each connector to be wired to a cable. Cable housings are the same for plugs and receptacles.



PART NUMBERS FOR CABLE HOUSING ONLY

No. of Contacts	Clear Chromate	Gold Iridite
9	17-310-01	17-310-02
15	17-311-01	17-311-02
25	17-312-01	17-312-02
37	17-313-01	17-313-02
50	17-314-01	17-314-02

PART NUMBERS FOR LOCKING ASSEMBLIES

Type	Size	Clear Chromate	Gold Iridite
Spring Latch	9-37	17-529	17-847
Spring Latch	50	17-770	17-850
Screw Type	9-50	17-768	17-848
Floating Screw Type	9-50	17-769	17-849

ASSEMBLY TOOLS

AMPHENOL Part No.	Description
294-155	Insertion & Removal Tool
294-136	Crimp Tool Non-Adjust
294-57	Universal Crimp Kit
294-216	Economy Crimp Tool

Poke-Home Rectangular Connectors — 93 SERIES

Fast, Sure Wiring and Assembly

Poke-Home contacts make 93 Series connectors ideal for computer, aircraft radio, test equipment, and missile and aircraft applications where circuits must be changed frequently within the connector.

Connectors of the 93 Series may be mounted in place without contacts, and the wires crimped into the Poke-Home contacts on an assembly bench or where most efficient. The wired contacts may then be inserted in any desired position in the mounted connectors. Circuit changes or damages do not require a new connector. They can be handled by removing and replacing only the contacts affected. A simple tool does the job. (Poke-Home tools and procedures are shown on pages 10, 14, and 15.) The removable plate and cable clamp-half on the housing further facilitate assembly by permitting insertion of the wired insert into the shell without threading through the cable opening.

Available with or without screw-locks, with straight or right-angle cable openings, in 34, 42, or 50-contact sizes, 93 Series connectors fully meet rack and panel, cable-to-panel, and cable-to-cable requirements. Recessed contact terminations eliminate the need for protective sleeving, and a resilient face gasket of silicone rubber bars the entrance of metallic objects when connectors are mated.

Specifications

Temperature Range: -65°C to $+125^{\circ}\text{C}$

Current Rating: 7.5 amps

Voltage Rating: 500 VDC at Sea Level
125 VDC at 70,000'

Shells: Aluminum, cadmium plated with clear chromate

Contacts: Brass alloy, gold-over-silver plating

Dielectric: Glass filled diallyl phthalate per MIL-M-19833
Type GDI30

Wire Size: #20

ORDERING INFORMATION

① CONNECTOR ASSEMBLIES AVAILABLE

Part Numbers Shown Are *Not* Mated Pairs
See Chart ③ For Mated Pairs

PANEL MOUNTED without jacksockets

No. Contacts	Male	Female
34	93-32	93-31
42	93-33	93-34
50	93-35	93-36

PANEL MOUNTED with fixed jacksockets

34	93-1	93-2
42	93-11	93-12
50	93-21	93-22

CABLE MOUNTED with straight cable housing, cable clamp & jackscrews

34	93-37	93-41
42	93-45	93-49
50	93-53	93-57

CABLE MOUNTED with 90° cable housing, cable clamp & jackscrews

34	93-38	93-42
42	93-46	93-50
50	93-54	93-58

CABLE MOUNTED with straight cable housing, cable clamp, WITHOUT jackscrews

34	93-39	93-43
42	93-47	93-51
50	93-55	93-59

CABLE MOUNTED with 90° cable housing, cable clamp WITHOUT jackscrews

34	93-40	93-44
42	93-48	93-52
50	93-56	93-60

② COMPONENTS AVAILABLE

INSERTS—used only for assembly to housings that have jackscrews

No. Contacts	Male	Female
32	93-5	93-6
42	93-15	93-16
50	93-25	93-26

INSERTS with jacksockets—used only for assembly to housings that DO NOT have jackscrews

No. Contacts	Male	Female
32	93-3	93-4
42	93-13	93-14
50	93-23	93-24

STRAIGHT CABLE HOUSING

	with jackscrews	without jackscrews
32	93-8	93-10
42	93-18	93-20
50	93-28	93-30

90° CABLE HOUSING

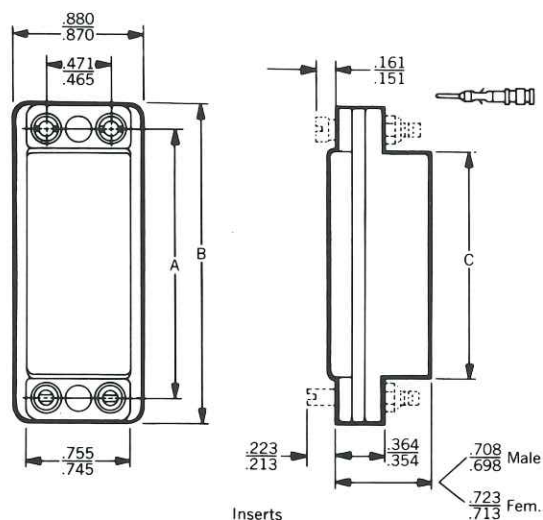
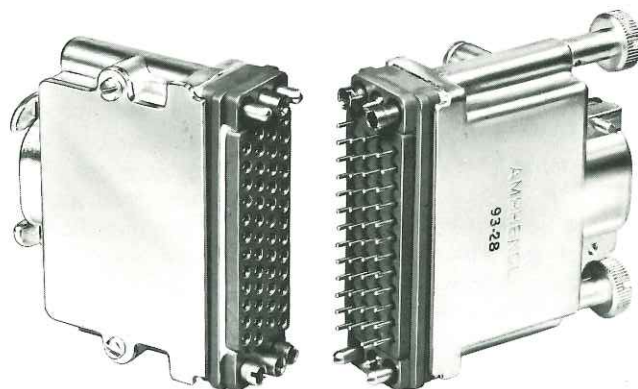
	with jackscrews	without jackscrews
32	93-7	93-9
42	93-17	93-19
50	93-27	93-29

All connector assemblies are supplied with guide pins, guide sockets and contacts.

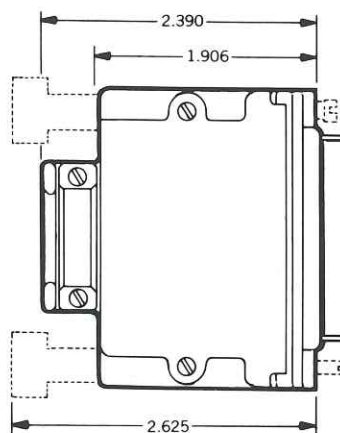
③ MATED PAIRS BY PART NUMBER For Part Number Description Use Table ①

	93-2	93-12	93-22	93-31	93-34	93-36	93-41	93-42	93-43	93-44	93-49	93-50	93-51	93-52	93-57	93-58	93-59	93-60
MALE																		
93-1							X	X										
93-11											X	X						
93-21															X	X		
93-32				X														
93-33					X													
93-35						X												
93-37	X								X	X								
93-38	X									X	X							
93-39							X	X										
93-40							X	X										
93-45		X											X	X				
93-46		X											X	X				
93-47										X	X							
93-48										X	X							
93-53			X													X	X	
93-54			X													X	X	
93-55															X	X		
93-56															X	X		

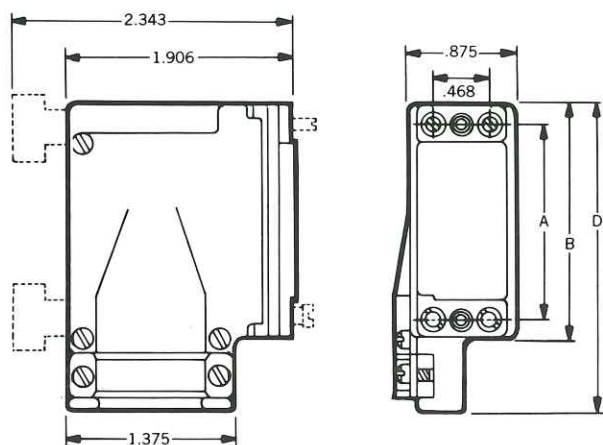
93 SERIES — Poke-Home Rectangular Connectors



Inserts



Straight Housings



Right Angle Housings

Approximate Dimensions (Inches)

	A	B	C	D
34 Contacts	1.687	2.000	1.375	2.656
42 Contacts	2.000	2.312	1.687	2.968
50 Contacts	2.281	2.593	1.968	3.250

ASSEMBLY TOOLS

AMPHENOL Part No.

Description

294-90	Crimp Pliers Non-Adjust.
294-57	Universal Crimp Kit
294-62	Removal Tool with Indicators
294-58	Removal Tool Without Indicators
—	No Insertion Tool Required

ECONOMY VERSION

Convenience at a Low Price

The many convenience features that have made regular 93 Series connectors popular are now available also on 93 Series Economy connectors. Both have the same versatile hardware and offer the same fast, sure wiring and assembly advantages.

They differ only in that the economy version does not have collet contacts, molded-in stainless steel washers in each contact pocket, or a resilient silicone face gasket. The economy version does not meet stringent military requirements, but it more than fills the bills for commercial usage.

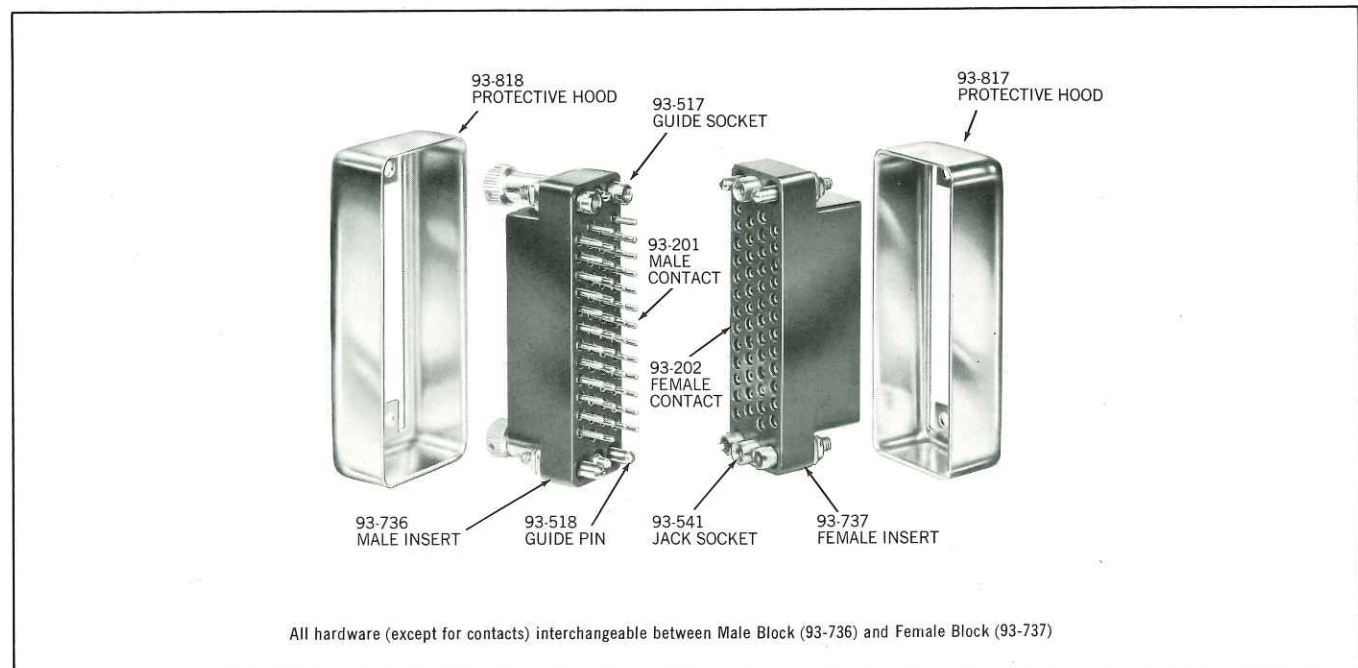
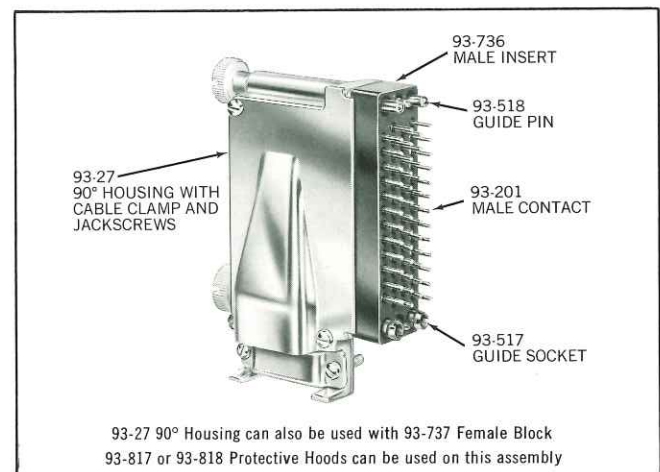
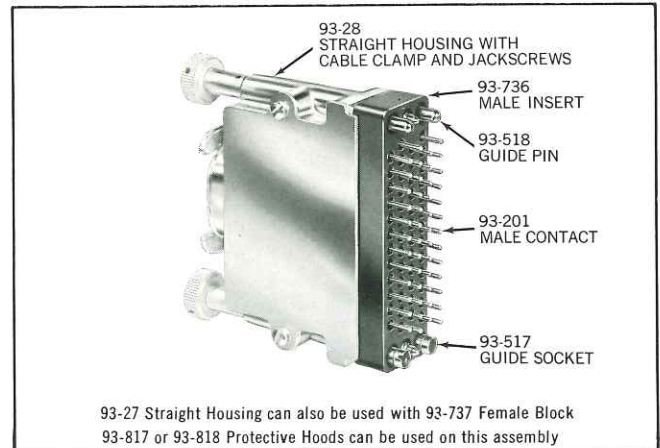
At present, the economy connectors are available in the 50-contact size, with component parts bulk packed for economy. (To get these connectors as packaged assemblies, contact the factory.)

Contacts are available in reels of 2000 for automatic crimping.

Add -2000 to part numbers for reel and contacts.

New Protective Hoods

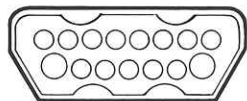
Use hood on cable mounted female connector to prevent chipping of dielectric when dropped. Use it on male connector to prevent damage to pins. Male and female mate.



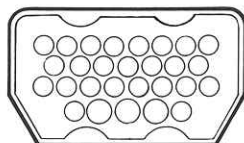
94 SERIES — Poke-Home Rectangular Connectors



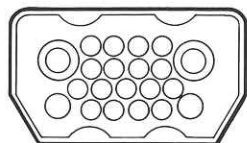
INSERT ARRANGEMENTS



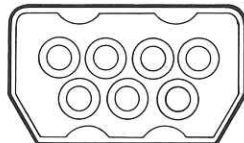
94-11320 and 94-21320



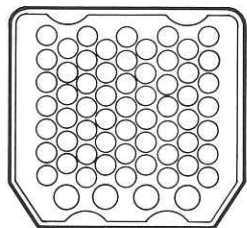
94-32530 and 94-42530



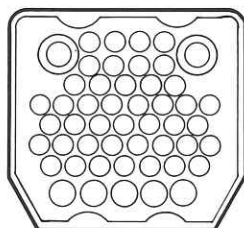
94-31722 and 94-41722



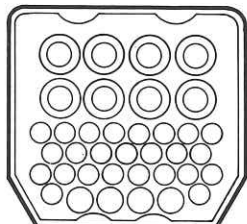
94-30007-2 and 94-40007-2



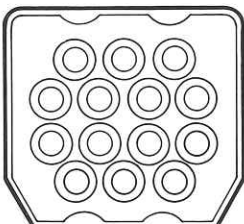
94-55940 and 94-65940



94-54352 and 94-64352



94-52548 and 94-62548



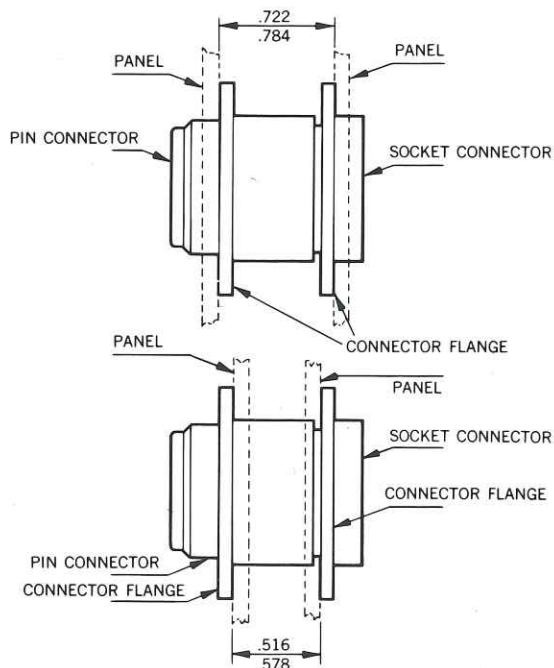
94-50014-5 and 94-60014

Simplify Circuit Changes Accommodate Coax Cable, Too

Circuit changes are simple with 94 Series connectors because individual Poke-Home contacts and wires can be readily removed and replaced without disturbing the connector.

Three different shell sizes are offered in the 94 Series and 8 different insert arrangements, including 5 with coax contacts for RG-58/U and RG-180/U cable. (For other insert arrangements, consult the factory.) Three sizes of back shell and cable clamp assembly are also available for cable applications.

Poke-Home contacts come in both solder and crimp type; all coax contacts are solder type. (Poke-Home crimping tools are shown on pages 14 and 15. Those applicable to 94 Series connectors are listed on page 13.) Solder pockets are recessed in the dielectric body so that protective sleeving is unnecessary. Female contacts are hooded.



ORDERING INFORMATION

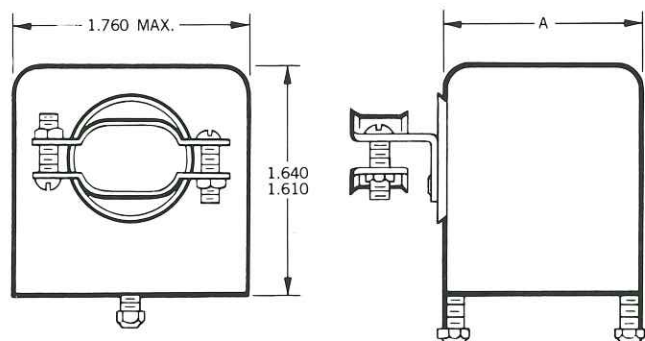
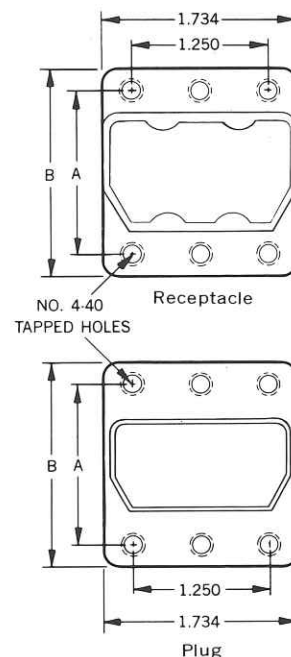
AMPHENOL Part Number *		Number of Contacts			Dimensions	
Plug With socket contacts	Receptacle With pin contacts	#16	#20	Coax	A	B
94-11320	94-21320	2	13	—	1.000"	1.187"
94-32530	94-42530	3	25	—	1.281"	1.468"
94-31722	94-41722	2	17	2 RG-58/U	1.281"	1.468"
94-30007-2	94-40007-2	—	—	7 RG-58/U	1.281"	1.468"
94-52548	94-62548	4	25	8 RG-180/U	1.921"	2.109"
94-55940	94-65940	4	59	—	1.921"	2.109"
94-54352	94-64352	5	43	2 RG-58/U	1.921"	2.109"
94-50014-5	94-60014-5	—	—	14 RG-58/U	1.921"	2.109"

To order crimp contacts, add the suffix -1 to the standard part number.

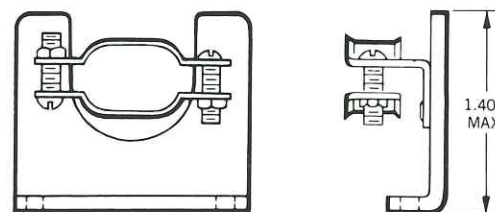
To order connectors for use with hood and cable assemblies*, add the following suffix, as applicable, to the standard part number:

- 11 With solder contacts, but less hood and clamp assembly
- 12 With crimp contacts, but less hood and clamp assembly
- 13 With solder contacts and hood and clamp assembly
- 14 With crimp contacts and hood and clamp assembly

*Note: When cable clamps are used, the center tapped hole on the flange of the connector must be drilled.



HOOD AND CABLE CLAMP ASSEMBLY



94-520

CABLE CLAMP MOUNTING ASSEMBLY

HOOD AND CABLE-CLAMP ASSEMBLY

A DIM.	AMPHENOL Part Number
1.088	94-549
1.369	94-548
2.010	94-547

ASSEMBLY TOOLS

AMPHENOL Part No.	Description
294-90	#20 Crimp Tool Non-Adjust.
294-94	#16 Crimp Tool Non-Adjust.
294-58	#20 Removal Tool
294-48	#16 Removal Tool
294-57	Universal Crimp Kit
294-3	Coaxial Removal Tool

Specifications

Temperature Range: -60°C. to +125°C.

Current Rating: 7.5 amps for #20; 20 amps for #16

Voltage Rating: 600 VAC (RMS) at Sea Level

Shells: Aluminum, cadmium plated, chromate treated

Crimp Contacts: Silnic bronze, gold-over-silver plating

Solder Contacts: Female—brass alloy; male—“half-hard” brass;
Both: Gold-over-silver plating

Dielectric: Hard Insert: Fibre filled diallyl phthalate
Resilient Insert: Silicone rubber

Wire Size: #16, #20, RG-58/U, RG-180/U

POKE HOME® CONTACT CRIMPING

For High Speed and Consistent Reliability

Soldering is fine . . . *when everything is just right*. If the soldering iron temperature is right, the solder composition proper, the flux correct, and all soldering points clean, a well trained operator can make about 200 soldered terminations an hour.

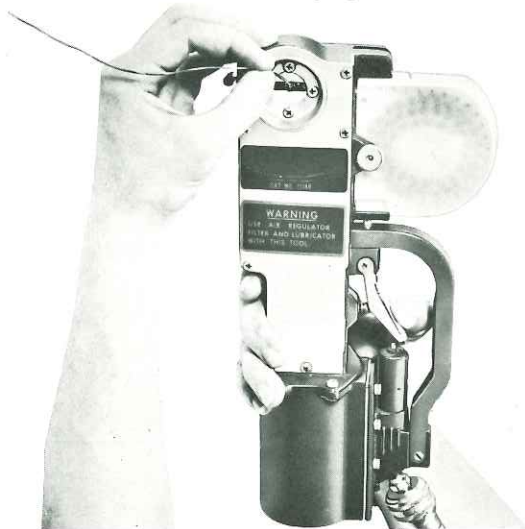
If any of these go wrong, speed goes down and rejects go up. What's worse, a bad job (for example, a cold solder joint) may go undetected, and equipment may fail at a critical time. You can never be completely sure, because you can't tell the quality of the soldered joint by inspection.

Crimping is a sure thing. With less than an hour's training, a new operator can produce a steady flow of good, reliable terminations. In practically no time, he can build up to a speed of 400 terminations an hour with a hand tool and 600-800 an hour with a pneumatic tool.

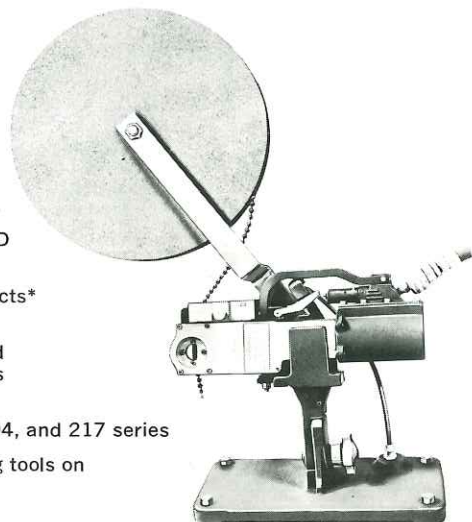
You can be sure these terminations are good, because you can check the tool setting and know it will continue to be good . . . crimp after crimp after crimp.

HOW POKE HOME CRIMPING ASSURES TOP EFFICIENCY

**4-INDENT
Semi-Automatic Crimping Machines**



HAND HELD
For Standard Poke-Home Contacts*
294-605



BENCH MOUNTED

For Standard
Poke-Home Contacts*
294-506

For Wire Form and
Relia-Tac Contacts
294-507

*Used in 17, 93, 94, and 217 series

(Also see crimping tools on
pages 15 and 18)

Speed—Crimping is a fast 1-2-3 process: insert contact, insert wire, close tool—and the contact termination is complete. That's why the hand tool gives up to 400 terminations an hour. Pneumatically-operated tools, with cartridge or reel-fed contacts, eliminate the contact insertion step and increase the yield to 600-800 terminations per hour.

Consistent Quality—The preset crimping tool automatically controls crimp depth and eliminates the possibility of over-crimping or under-crimping.

Dependable Inspection—Once the crimping tool is inspected for proper setting, it consistently provides identical production terminations. Visual inspection through the contact inspection hole immediately verifies proper wire insertion.

High Holding Power—AMPHENOL's four-indent crimp provides such excellent wire confinement that high pull-out forces exceed the minimum wire-breaking strength before they pull the wire out of the contact.

Easy Termination Accessibility—Problems of closely spaced contacts and close quarters are minimized, because contacts can be crimped to leads, *then* inserted in connectors. Explosive atmosphere and lack of electric power—bugaboos of soldering—are no problems, because the hand tool needs no power and creates no hazard.

High Temperature Range—Crimp terminations can be used in high-temperature applications where solder might soften or melt.

Minimum Operator Training—It takes only a few minutes to show the simple steps to a new operator and make sure he can do the job.

HOW TO USE MS3191-1 HAND CRIMPING TOOL

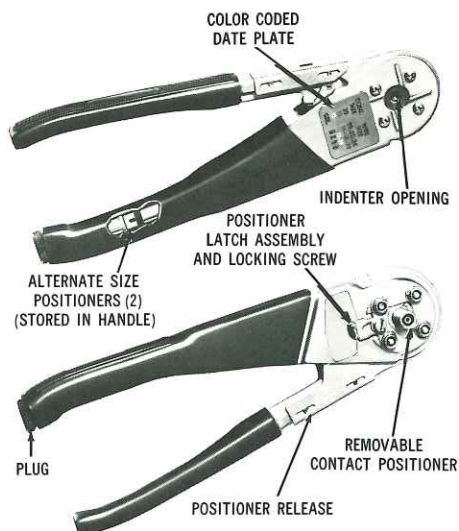
Setting Up Tool

1. Put tool in "open" position by squeezing handles to their maximum position to trip ratchet, then releasing them.
2. Loosen latch locking screw and pull latch to "open" position.
3. Pull positioner release all the way down against force of spring and insert or remove positioner.
4. Select proper positioner for contact size. Positioners are color coded and stamped for size. Be sure flat on flange mates with the flat in handle. Positioner flange must be flush with handle before positioner latch assembly and locking screw can be fully closed and locked.
5. After positioner is in place, push latch to closed position and tighten latch locking screw. Tool is now ready to crimp.

Crimping

1. Insert prepared contact and wire through the indenter opening into positioner.
2. Squeeze handles together until positive stop is reached. Tool will then release and return to fully "open" position. Remove crimped contact and wire.

Procedures for the other crimping tools are similar. See applicable manual.



294-126 4-Indent MS3191 Crimping Tool for standard contacts except on 93 and 94 Series. For 93 and 94 Series, use Indent Crimping Tool 294-57.

Order applicable positioners for size of contacts crimped.

(Also see crimping tools on pages 14 and 18)

CONTACT INSERTION AND REMOVAL With Ease and Consistent Reliability

Properly designed contact insertion and removal tools are available for the connectors in this catalog. Find the proper tool numbers on the pages covering the specific connectors.

INSERT OR REMOVE INDIVIDUAL CONTACTS AT WILL

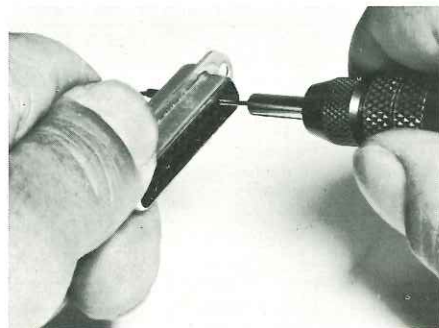
Insertion

1. Cradle the crimp end of contact in round end of tool, making sure tip of tool rests against contact shoulder at base of crimp.
2. Carefully direct mating end of contact into appropriate wire hole in grommet assembly.
3. Push contact into grommet assembly until contact is seated with a positive stop. When shoulder on insertion bit reaches grommet face, insertion is complete.

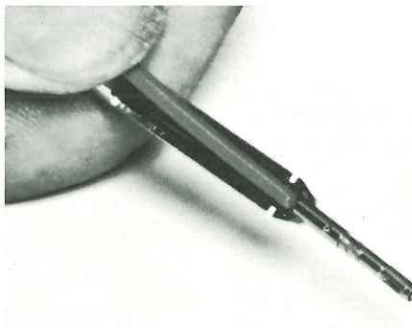
4. Withdraw tool, keeping it at right angles to grommet face during withdrawal.

Removal

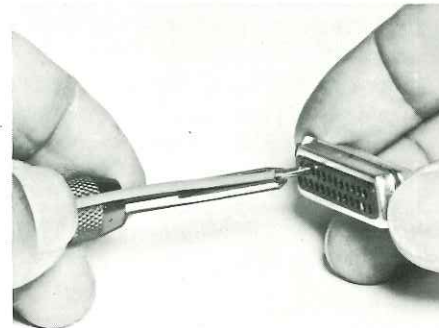
1. Select proper removal tool for size of contact.
2. Insert bit (into mating end of female contacts, over mating end of male contacts) and push the contact out.



REMOVING CONTACT

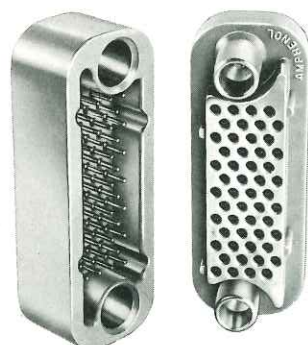


CRADLING CONTACT IN TOOL

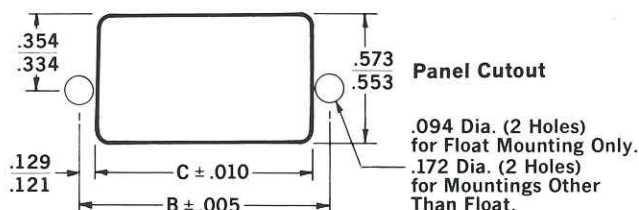
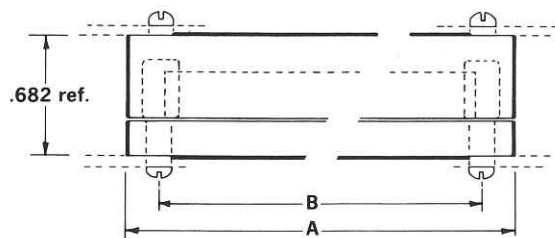
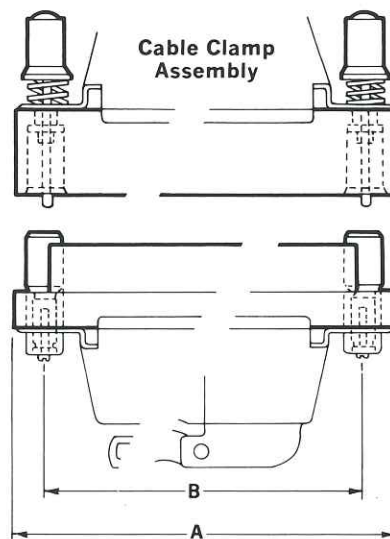
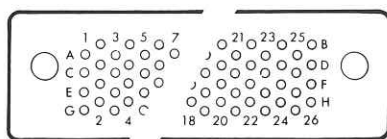
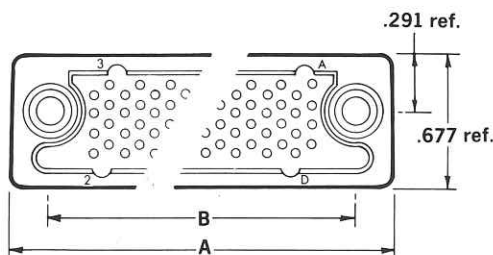


INSERTING CONTACT

220 SERIES—MICRO-RAC Connectors



Receptacle Plug
(Relia-Tac Contacts Illustrated)



Dimensions (Inches)

Conn. Size (No. of Contacts)	A Length max.	B Mounting Centers	C Cutout Length
52	1.888	1.492	1.250
104	3.017	2.611	2.359

High Reliability at Low Cost

AMPHENOL Micro-Rac connectors have a monoblock body, injection molded of polycarbonate resin, with molded-in contact identification numbers. Polarization is achieved by means of a trapezoidal mating area and keying by molded-in slot-and-key arrangements. Slot keying can be supplied in any of 24 positions. Connectors are float mounted.

Micro-Rac connectors are stocked in 52 and 104-contact sizes. Cable clamp assemblies are available for both sizes. Special size connectors can be supplied if needed; contact your Amphenol Sales Engineer.

Environmental resistance can be added by potting the leads with an approved potting compound and sealing the connector faces with a molded neoprene gasket.

Ordering Information

Series Designation 220	220- 1 N 104	Number of Contacts 052, 104
Insert Style 1—Plug (Lexan) 2—Receptacle (Lexan) (Includes Hardware)	Connector Class N—Non-environmental P—Environmental, Potted	

NOTE: ORDER CONTACTS SEPARATELY (Page 18)

Use *Wire-Form pin* contacts for plugs, *socket* contacts for receptacles.
Use *Relia-Tac pin* contacts for receptacles, *socket* contacts for plugs.

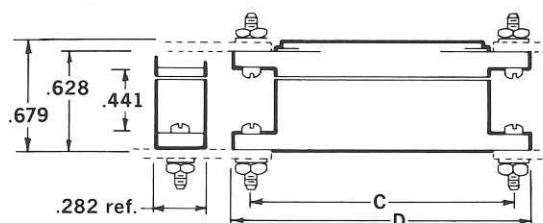
Description		AMPHENOL Part Number
Guide Hardware for all Receptacles	52 Contacts 104 Contacts	220-546 220-546
Guide Hardware for all Plugs	52 Contacts 104 Contacts	220-706 220-706
Cable Clamp Assembly	52 Contacts 104 Contacts	220-5 220-6
Potting Mold	52 Contacts 104 Contacts	220-635 220-634

TINY TIM Connectors—223 SERIES

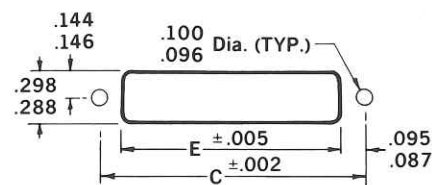


Plug Receptacle

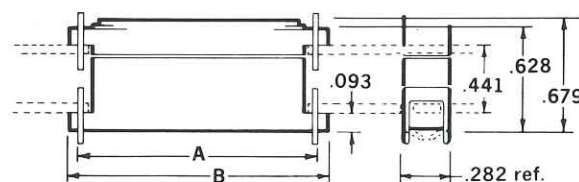
(Relia-Tac Contacts Illustrated)



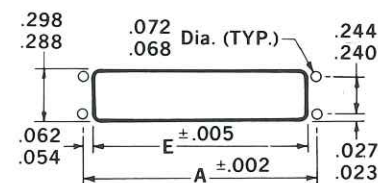
Mated Pair—Screw Mounted



Panel Cutout



Mated Pair—Clip Mounted



Panel Cutout

Dimensions (inches)

CLIP MOUNTED

SCREW MOUNTED

No. of Contacts and Connector	A Mounting Centers Length	B ref. Overall Length	E Length of Cutout	C Mounting Centers	D ref. Overall Length	E Length of Cutout
5/c Plug	.526	.650	.410	.593	.843	.410
5/c Recept.	.526	.650	.410	.593	.843	.410
9/c Plug	.726	.850	.610	.793	1.043	.610
9/c Recept.	.726	.850	.610	.793	1.043	.610
17/c Plug	1.126	1.250	1.015	1.193	1.443	1.015
17/c Recept.	1.126	1.250	1.015	1.193	1.443	1.015
25/c Plug	1.526	1.650	1.410	1.593	1.843	1.410
25/c Recept.	1.526	1.650	1.410	1.593	1.843	1.410
33/c Plug	1.926	2.050	1.810	1.993	2.243	1.810
33/c Recept.	1.926	2.050	1.810	1.993	2.243	1.810

5, 9, 17, 25, and 33 Contacts

AMPHENOL Tiny Tim connectors provide ideal interconnection for circuit modules, either potted-in or surface mounted. Tiny Tim may also be used as a micro-miniature rack and panel or cable-to-cable connector. Contact identification numbers are molded into the connector body, as is the snap latch engagement locking device. Contact spacing is .100" on centers on each row. Trapezoidal mating faces are used for polarization. Keying is obtained by use of 221-535 guide pins.

Both Relia-Tac and Wire Form Poke-Home contacts are used in the Tiny Tim connector, providing excellent performance and quick, easy assembly. Tiny Tim connectors are supplied either for screw mounting or for clip mounting, and in five sizes (5, 9, 17, 25 and 33 contacts). Tiny Tim meets MIL-C-8384B requirements.

Cable clamps are available for screw mount connectors.

Ordering Information

Series Designation	223- 1 1 17	Number of Contacts
223		05, 09, 17, 25, 33
Method of Mounting		Insert Style
1—Screw Mount		1—Plug (Lexan)
2—Clip Mount		2—Receptacle (Lexan)

NOTE: ORDER CONTACTS SEPARATELY (Page 18)

Use Wire Form pin contacts for plugs, socket contacts for receptacles.

Use Relia-Tac pin contacts for receptacles, socket contacts for plugs.

Description		AMPHENOL Part Number
Cable Clamp Assembly	5 Contacts	223-21-01
	9 Contacts	223-21-02
	17 Contacts	223-21-03
	25 Contacts	223-21-04
	33 Contacts	223-21-05

223-645 Mounting Clips

221-535 Guide Pins for Keying (Use with Plugs)

Micro-Miniature Poke-Home Contacts

Relia-Tac Contacts

These rugged, tried and proven contacts fit all 220, 221, 222, and 223 series Micro-Miniature connectors. They may also be used for module headers, motherboard assemblies, and micro-electronic interconnections.

Relia-Tac contacts are usually crimp terminated, but are available for welded, solder, and wire-wrap termination.

Wire Form Contacts

The unique 4-member spring design of the pin exerts self-equalizing force on 4 separate contact areas of the socket wall, reducing contact resistance and raising reliability to a very high level.

Wire Form contacts fit all 220, 221, 222, and 223 series Micro-Miniature connectors. They are usually crimp terminated but are available also for welded, solder, and wire-wrap termination. Eyelet type female contacts are available for specialized interboard connection and for potted component use.

Guide Pins

These Poke-Home guide pins are for polarizing, keying, or connector alignment. They supplement the keyed slots and can be used in conjunction with either Relia-Tac or Wire Form contacts. They are inserted in plug inserts.

Specifications

Current Rating—3 amps

Resistance:

Relia-Tac Contacts—.0060 ohm maximum
Wire Form Contacts—.0050 to .0060 ohm

{ Constant to 1000
cycles of insertion
and withdrawal

Wire Range—Solid: 22, 24, 26, and 28 gage

Stranded: 24, 26, and 28 gage

Contact Material: Relia-Tac—Gold over nickel-plate on copper alloy bodies

Wire Form—Standard crimp type contacts incorporate gold clad copper alloy wire members in copper sleeves; finish is gold plate.

Temperature Rise—Wire Form Contacts: 9° to 12°F at 3 amps
Less than 1°F at 1 amp

Tools

RELIA-TAC



WIRE-FORM



GUIDE PINS



Ordering Information

(Minimum order quantity is 100 pieces)

	AMPHENOL Number	
	Relia-Tac	Wire Form
Pin Contacts	220-PO2	220-PO1 (Formerly 220-692)
Socket Contacts	220-SO2	220-SO1 (Formerly 220-679)

Information on tools for contact processing is shown below and also on pages 14 and 15.

CRIMPING TOOLS



294-166 4-Indent, Standard Crimping Tool, Including—294-1148 Nest Bushing for Socket Contact—294-1149 Nest Bushing for Pin Contact

Adjustable 4-Indent miniature crimp tool to MIL-T-22520

294-211
Crimp tool less contact positioners

Contact positioners:
294-1392 Pin
294-1393 Socket

TOOLS FOR WIRE FORM AND RELIA-TAC CONTACTS



Power and Coax Connectors — 305 and 306 SERIES

The 305-306 Series are primarily rack and panel connectors. The 305 Series has power contacts and power contacts in combination with coaxial contacts. The 306 Series has only coaxial contacts.

VARIABLE STANDARDS

Both series can be classified as Variable Standards. This means a standard connector can be varied to meet your particular requirement by:

1. Starting with an existing standard connector
2. Determining your requirements
3. Matching your requirements with an Amphenol part by the deletion or interchange of standard components in a standard insulator.

305 SERIES GENERAL INFORMATION

The male contacts are retained in the dielectric by staking or riveting. This includes the coaxial contacts. The female contacts are generally free to float in the dielectric. They are retained by sandwiching on shoulders between two dielectric boards or by retainer clips.

The connectors are mounted in their applications by several means. In some cases, the dielectric is fastened directly to the rack and panel by means of customer-provided hardware. Connectors may also have guide pin and bushing combinations with spacers for polarization and for direct mounting with no additional hardware. Mounting grommets are included on some connectors.

Auxiliary hardware available for special applications includes covers for male and female connectors.

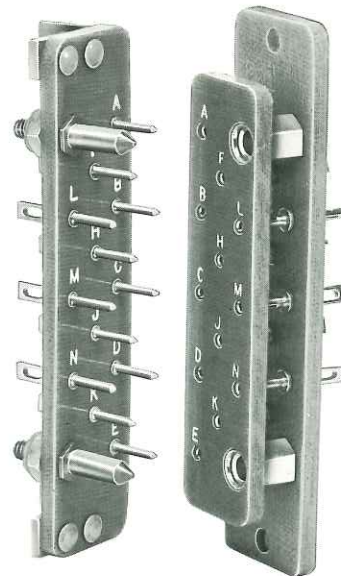
The power contacts approximate #18, #16, #12 and #10 size contacts. The coaxial contacts will accept RG-58/U, RG-59/U, RG-62/U, RG-174/U, RG-179/U, RG-180/U, RG-180A/U, RG-187/U and RG-195/U coaxial cable.

306 SERIES GENERAL INFORMATION

The 306 Series of connectors has coaxial contacts mounted on rectangular metal plates of brass with cadmium plating. The coaxial contacts are either silver or gold plated, and accept RG-58/U, RG-180/U, and RG-195/U coaxial cable. With polarizing pins where required.

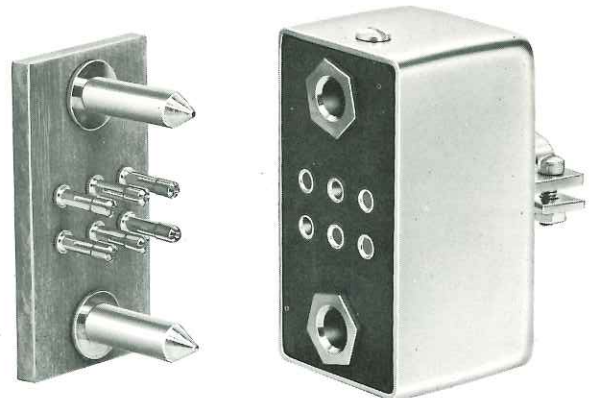
The male connectors are mounted directly with customer-supplied hardware. The female connectors are designed for cable applications and attach to the male connectors by means of a jack screw.

Auxiliary hardware includes covers with cable clamps and jack screw attachment for female connectors.



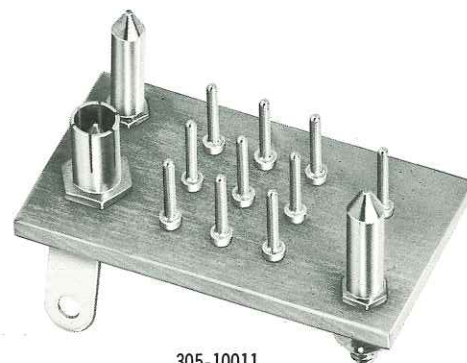
305-10006

305-10086



305-10010

305-10009



305-10011

305 and 306 SERIES—Power and Coax Connectors

ORDERING INFORMATION

This page lists 305 and 306 Series connectors presently tooled for production at Amphenol. As indicated, these connectors are mating pairs.

306 SERIES—COAXIAL CONNECTORS

RG180/U and RG180A/U:				
Insert Arrangement	No. of Contacts	Male 306-	Amphenol No. Female 306-	Polarization
U	6	10002	10003	A
U	6	10006	10004	B
U	6	10032	10003, 10004	None
V	10	10008	10011	A
V	10	10029	10011, 10012, 10013	None
RG58/U:				
U	6	10008-4	10011-4	A
V	10	10008-1	10011-1	A
V	10	10008-3	10011-1	A
RG195/U:				
V	10	10008-2	10011-2	A

305 SERIES—POWER CONNECTORS

Insert Arrangement	Contact Size	No. of Contacts	Amphenol No. Male 305-	Female 305-
A	10	4	10024	10025
B		5	10026	10027
C		14	10140	10139
D	12	6	10010	10009
D		6	10010	10040
E	16	10	10020	10021
F		11	10013	10014
F		11	10013	10016
G		15	10017	10018
G		15	10019	10018
I		11	10091	10092
J		23	10058	10057
K		38	10087	10088
K		46	10089	10090
K		58	10093	10094
L	18	12	1900	10086
L		12	10006	10086
M		17	1901	10055
N		8	10022	10023
O		11	10071	10072
O		11	10471	10470

305 SERIES—POWER CONNECTORS WITH COAXIAL CONTACTS

Insert Arrangement	Contact Size	No. of Contacts	No. of Coax	For Coaxial Cable	Amphenol No. Male 305—	Female 305—
P	18	6	*2	RG59/U, 62/U	10052	10074
P		6	*2	RG59/U, 62/U & RG 179A/U, 187/U	10073	10075
Q		6	*3	(2) RG58/U & RG59/U, 62/U	10098	10100
P		6	2	RG58/U & RG59/U, 62/U	10103	10102
P		6	*2	RG58/U & RG59/U, 62/U	10105	10104
R		9	*2	RG58/U & RG59/U, 62/U	10108	10109
R		9	*2	(2) RG59/U, RG62/U	10484	10485
S		10	*3	(3) RG59/U, RG62/U	10069	10096
S		10	*3	(3) RG59/U, RG62/U	10111	10110
T		15	*2	(2) RG59/U, RG62/U	10036	10037

*Grounding Plate



305-10014



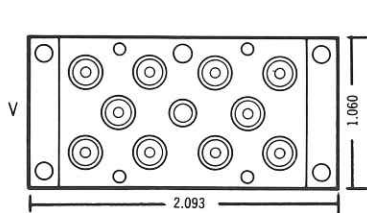
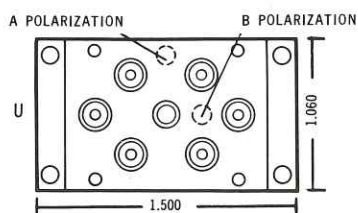
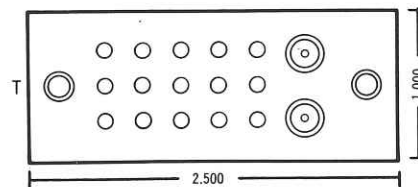
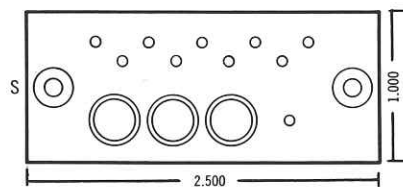
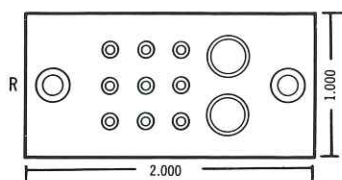
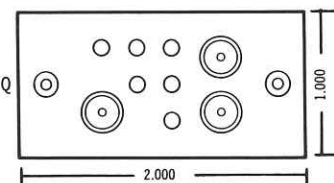
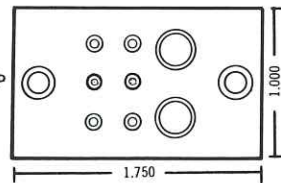
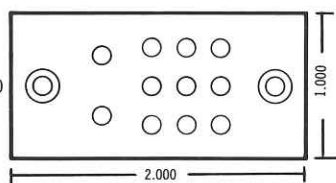
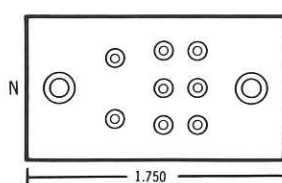
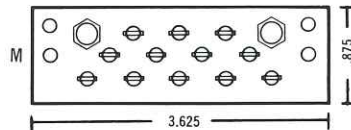
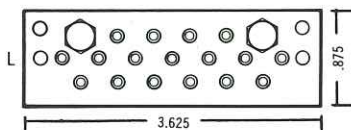
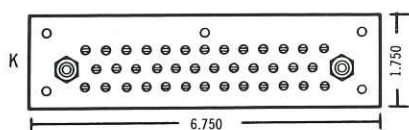
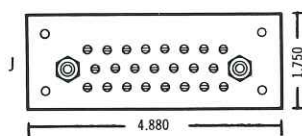
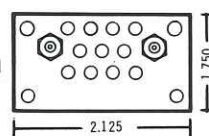
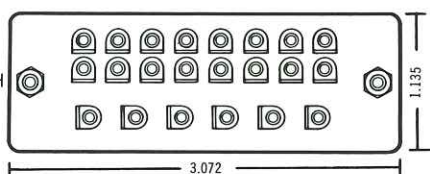
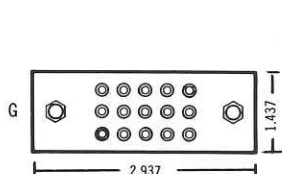
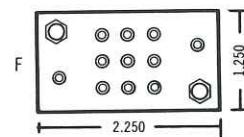
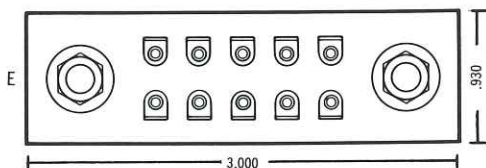
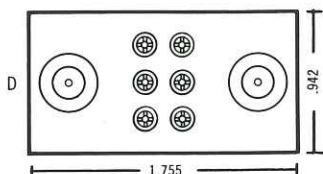
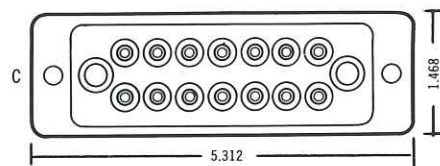
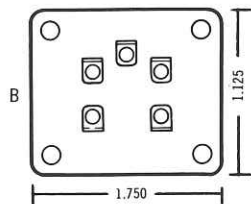
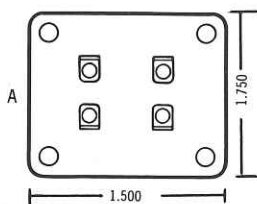
305-10013

306 SERIES—TYPICAL VARIATION

MAKE YOUR OWN CONNECTOR DESIGN

1. Select a basic size and configuration closest to your requirements
2. Delete or interchange components to get your customized version, fitting all your needs
3. Call us to get the low cost and quick delivery that our Variable Standard Parts provide.

DIMENSION—INCHES



NOTE: All dimensions shown are nominal and may vary up to .5

57 SERIES—Micro-Ribbon®—Miniature Connectors

Maximum Reliability in Minimum Space

Using the unique "ribbon" contact principle, these extremely small Blue Ribbon connectors provide increased reliability in miniaturization programs, particularly in airborne electronics and computer projects.

The smooth, easy insertion and extraction, the self-wiping, self-cleaning features, and the double-sided flexing action of both mating contact members make Micro-Ribbon connectors the first miniatures to increase reliability while decreasing size. Available with as many as 50 contacts, Micro-Ribbon connectors permit routing a

great many circuits through a few connectors at considerable savings in space and weight.

Bodies are molded of improved diallyl phthalate with extremely high impact strength and excellent dielectric features. Contact tails have eyelets for soldering. Pre-tinning wires before soldering is recommended.

Standard shells are cadmium-plated brass with clear chromate treatment. To get shells plated in accordance with QQ-P-416, Type II, Class 2 (cadmium with gold iridescent chromate), add -1 at end of the part number. Rack and panel receptacle shells have float bushings which allow .020" radial float.



Cable to Chassis

CABLE-TO-CHASSIS TYPES Micro-Ribbon connectors are available in compact cable-to-chassis mounting types. Sturdy spring-type latches on the receptacles are guided and held by cut-outs in the plug flanges.

CABLE-TO-CABLE TYPES Cable-to-Cable Micro-Ribbon connectors come in the 50-contact size. Cable-to-chassis plugs and mating receptacles can also be adapted for cable-to-cable applications by adding a back shell and cable-clamp assembly to the standard panel receptacle.

RIGHT-ANGLE SHELL TYPES Rack and panel connectors with right-angle shells are now available in 14, 24, and 50-contact sizes.

KEYED SHELLS Connectors are now available with 4 keying configurations: A, B, C, or D, and/or combinations of these.



Rack & Panel

Specifications

Voltage Rating—5 amps—700 VDC at sea level
200 VDC at 70,000 feet

Wire Sizes—Solid: #22 Max. Stranded: #24 Max.

Contact Plating—Gold plated over silver

Dielectric Material—Diallyl phthalate

Shells—Standard—Cadmium-plated brass w/clear chromate treatment

1 Deviation—Cadmium w/gold iridescent chromate, per QQ-P-416, Type II, Class 2

ORDERING INFORMATION

AMPHENOL Part Number

Contacts	Rack and Panel		Cable-to-Chassis		Cable-to-Cable		Right Angle Shell
	Plugs	Receptacles	Plugs	Receptacles	Plugs	Receptacles	
14	57-10140	57-20140	57-30140	57-40140	57-30140	57-60140	57-50140
24	57-10240	57-20240	57-30240	57-40240	57-30240	57-60240	57-50240
36	57-10360	57-20360	57-30360	57-40360	57-30360	57-60360	—
50	57-10500	57-20500	57-30500	57-40500	57-30500	57-60500	*

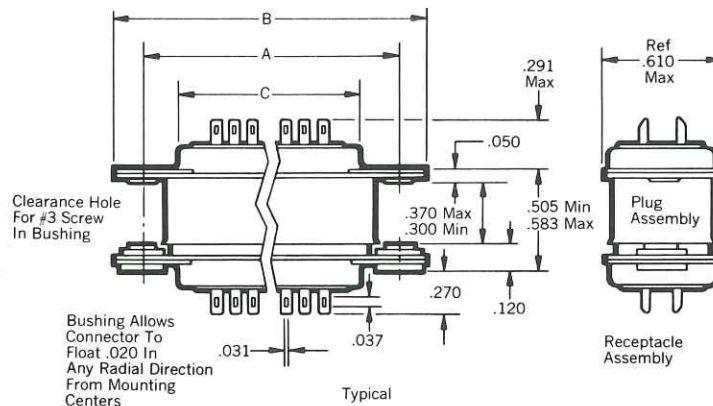
*Cable plug, 57-10500-7; Cable receptacle 57-20500-7.

DIMENSIONS (Inches)

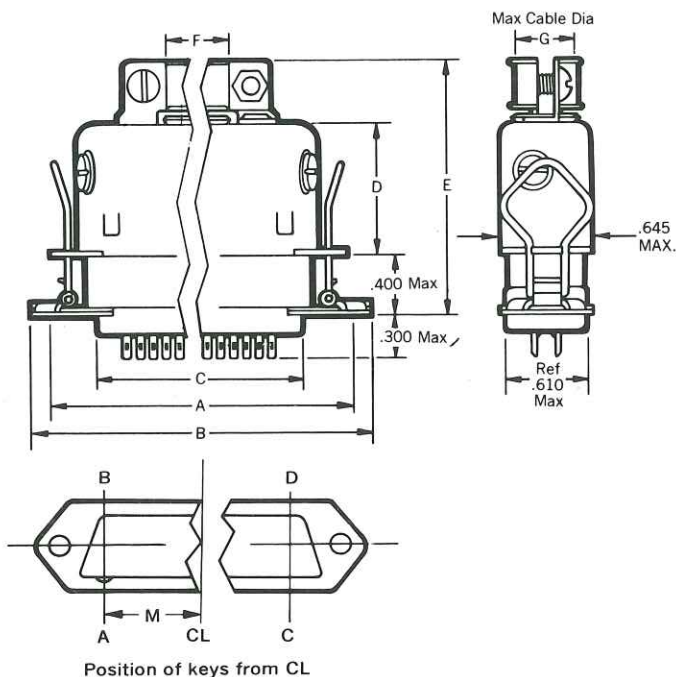
		14 Contacts	24 Contacts	36 Contacts	50 Contacts
Both Types	A	1.417	1.842	2.352	2.947
	B	1.750	2.175	2.685	3.270
	C	.910	1.335	1.845	2.440
Cable to Chassis Type Only	D	.843	.843	.905	1.000
	E	1.668	1.668	1.730	1.825
	F	.306	.473	.640	.766
	G	.422	.473	.473	.473
Bottom Mounting For Rack and Panel Type Only	H	1.098	1.523	2.033	2.628
	J	1.153	1.578	2.088	2.683
Top Mounting For Both Types	K*	.940	1.365	1.876	2.472
	L	.995	1.420	1.930	2.525
Key Position	M	.200	.400	.650	.950

NOTE: All dimensions are reference.

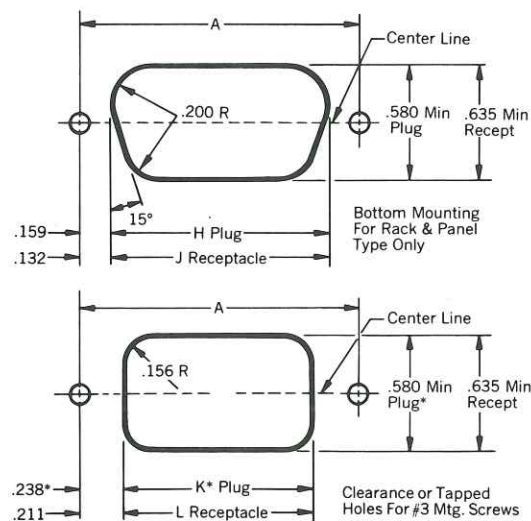
*Use this dimension for cable-to-chassis mounting.



RACK & PANEL TYPE



CABLE-TO-CHASSIS TYPE



26 SERIES—Blue Ribbon® Connectors

Ribbon principle eliminates problems of bent contacts—No visual alignment needed

Barrier Polarization Type Without Shells



Sturdy yet compact and lightweight, the barrier polarized 26 series of plugs and receptacles provides efficient interconnection for complex rack and panel configurations, as well as for small assemblies. Multiple mounting of a number of connectors on a single frame permits the simultaneous make or break of any number of circuits. Circuit switching or re-routing is easily accomplished by proper wiring of plug.

Positive, easy mating is assured by the interlocking barrier design. Polarization does not depend on contact arrangement, and visual alignment is unnecessary. Insertion is further aided by the Blue Ribbon Contacts, which cannot be bent in mating, and by the float-mounted receptacle.

Receptacles have molded-in, corrosion resistant, passivated stainless steel mounting plates for secure installation. Connector bodies are rectangular, for simplicity of layout.

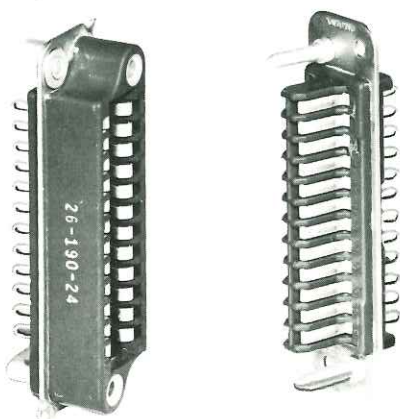
ORDERING INFORMATION

Plugs	Contacts	Mating Receptacles
26-182	8	26-183
26-4100-8P	8	26-4200-8S
26-4100-16P	16	26-4200-16S
26-4100-24P	24	26-4200-24S
26-4100-32P	32	26-4200-32S

Voltage Rating: 5 AMPS { 800 Volts D.C. at Sea Level
300 Volts D.C. at 70,000 Feet Altitude

NOTE: 26-4200 and 26-4100 connectors are also furnished with mounting plates having a gold iridescent iridite finish (over cadmium-plated stainless steel), per MIL-E-5400 Specification. To order, substitute a 5 for the 4 in the part number (26-5200 and 26-5100). Another 26-4200 and 26-4100 style offers taper pin adapters for the contact tails. To get these, substitute a 6 for the 4 in the part number (26-6200 and 26-6100).

Pin Polarization Type Without Shells



26 series pin polarized plugs and receptacles are similar in construction to the barrier type but are designed to withstand increased vibration and impact forces. This feature, together with their light weight and compactness, make these connectors ideal for airborne or mobile applications.

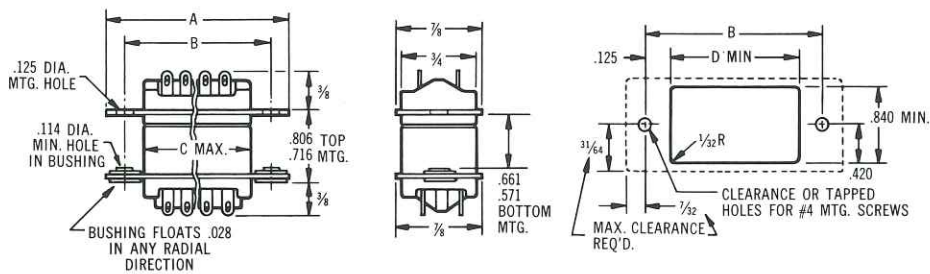
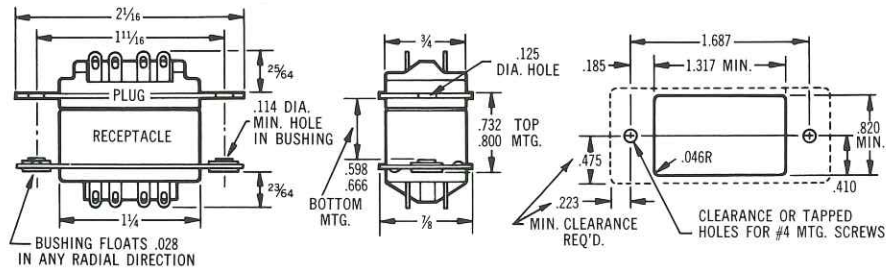
Positive contact is assured by the dual purpose polarizing pins, which also permit easy plug-in without danger of mismatching or need for visual alignment.

Receptacles are female and plugs are male.

ORDERING INFORMATION

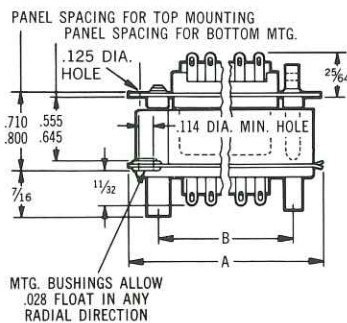
Plugs	Contacts	Mating Receptacles
26-159-16	16	26-190-16
26-159-24	24	26-190-24
26-159-32	32	26-190-32

Voltage Rating: 5 AMPS { 750 Volts D.C. at Sea Level
300 Volts D.C. at 60,000 Feet Altitude

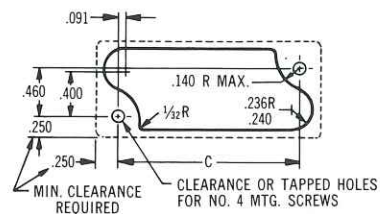


Dimensions—Inches

	A	B	C Max.	D-Min.
26-4100-8P mated with 26-4200-8S	1.721	1.375	1.100	1.120
26-4100-16P mated with 26-4200-16S	2.470	2.125	1.845	1.868
26-4100-24P mated with 26-4200-24S	3.220	2.875	2.600	2.620
26-4100-32P mated with 26-4200-32S	3.970	3.625	3.350	3.370



NOTE: CUTOUT SHOWS HOLES AS VIEWED FROM FRONT OF RECEPTACLE OR REAR OF PLUG

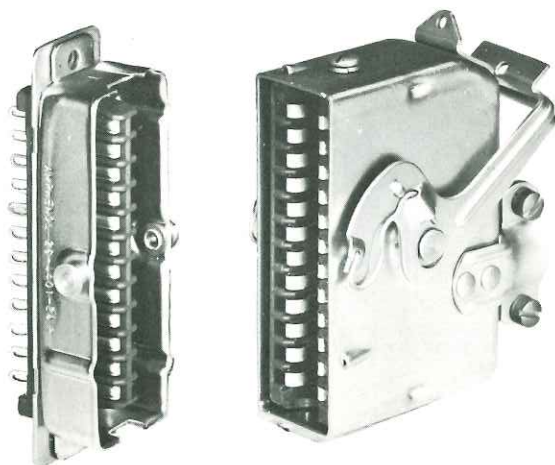


Dimensions—Inches

	A	B	C
26-159-16 mated with 26-190-16	2.442	1.842	2.024
26-159-24 mated with 26-190-24	3.118	2.522	2.704
26-159-32 mated with 26-190-32	3.798	3.202	3.384

26 SERIES—Blue Ribbon® Connectors

Barrier Polarization Type with Latch-Type Keyed Shells



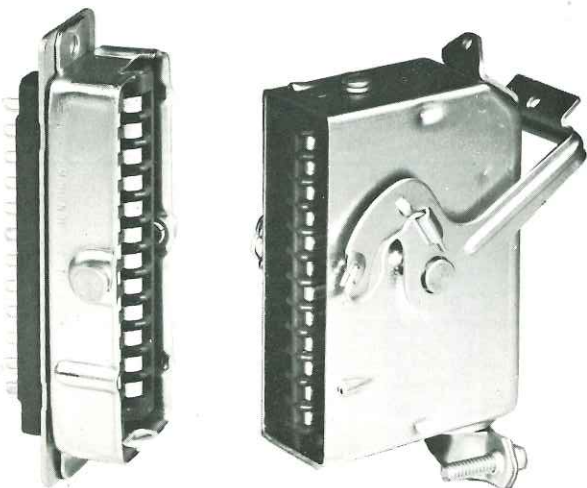
Designed for applications where there is severe vibration. A wide selection of polarization positions permits multiple installations on a single panel without danger of mismatching. For increased safety, latches have provision for safety wiring.

Two plug types are available—the 26-4300 series, and the 26-4500 series. Each type mates with 26-4400 series receptacles. Plugs of the 26-4300 series have a cable outlet mounted at the shell top. Plugs of the 26-4500 series are designed for limited space applications and have the cable outlet side-mounted on the shell.

Both receptacles and plugs have nickel-plated brass shells, and are supplied with either male or female inserts. To order, add P to the part number for a male insert, S for female insert. The part numbers for the connectors available are listed in the table on the facing page. Example: To get an 8-contact plug with side cable entry and female insert, order 26-45XX-8S.

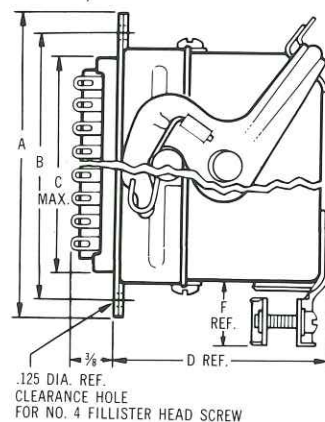
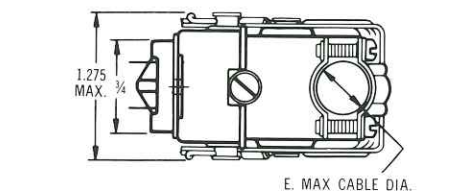
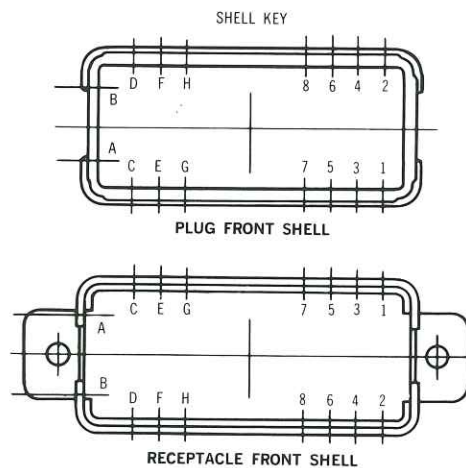
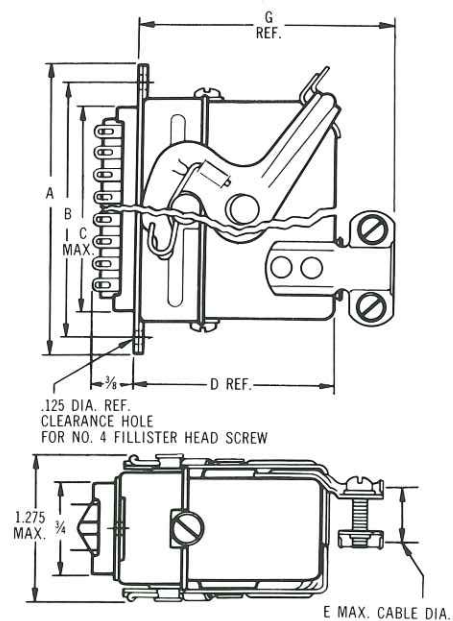
For cable-to-cable applications, the 26-44XX-XX receptacle is available with accessory hardware to convert it into a cable receptacle. Add (377) to the part number to obtain this construction.

Connectors can be furnished with adapters for contact taper pin assembly. Please write for details.



AVAILABILITY AND ORDERING INFORMATION

Plugs Top Outlet	Plugs Side Outlet	Contacts	Shell Keys Letters	Numbers	Mating Receptacles
26-4301-8	26-4501-8	8	A	1	26-4401-8
26-4302-8	26-4502-8	8	A	2	26-4402-8
26-4303-8	26-4503-8	8	B	1	26-4403-8
26-4304-8	26-4504-8	8	B	2	26-4404-8
26-4301-16	26-4501-16	16	A-C	3-6	26-4401-16
26-4302-16	26-4502-16	16	A-D	2-5	26-4402-16
26-4303-16	26-4503-16	16	A-E	5-6	26-4403-16
26-4304-16	26-4504-16	16	A-F	4-5	26-4404-16
26-4305-16	26-4505-16	16	B-C	1-6	26-4405-16
26-4306-16	26-4506-16	16	B-D	1-2	26-4406-16
26-4307-16	26-4507-16	16	B-E	1-4	26-4407-16
26-4308-16	26-4508-16	16	B-F	2-3	26-4408-16
26-4301-24	26-4501-24	24	A-C	3-6	26-4401-24
26-4302-24	26-4502-24	24	A-D	4-7	26-4402-24
26-4303-24	26-4503-24	24	A-E	5-6	26-4403-24
26-4304-24	26-4504-24	24	A-F	4-5	26-4404-24
26-4305-24	26-4505-24	24	A-G	6-7	26-4405-24
26-4306-24	26-4506-24	24	A-H	1-6	26-4406-24
26-4307-24	26-4507-24	24	B-C	2-7	26-4407-24
26-4308-24	26-4508-24	24	B-D	1-2	26-4408-24
26-4309-24	26-4509-24	24	B-E	1-4	26-4409-24
26-4310-24	26-4510-24	24	B-F	2-3	26-4410-24
26-4311-24	26-4511-24	24	B-G	3-4	26-4411-24
26-4312-24	26-4512-24	24	B-H	2-5	26-4412-24
26-4301-32	26-4501-32	32	A-C	3-6	26-4401-32
26-4302-32	26-4502-32	32	A-D	4-7	26-4402-32
26-4303-32	26-4503-32	32	A-E	5-6	26-4403-32
26-4304-32	26-4504-32	32	A-F	4-5	26-4404-32
26-4305-32	26-4505-32	32	A-G	6-7	26-4405-32
26-4306-32	26-4506-32	32	A-H	1-6	26-4406-32
26-4307-32	26-4507-32	32	B-C	2-7	26-4407-32
26-4308-32	26-4508-32	32	B-D	1-2	26-4408-32
26-4309-32	26-4509-32	32	B-E	1-4	26-4409-32
26-4310-32	26-4510-32	32	B-F	2-3	26-4410-32
26-4311-32	26-4511-32	32	B-G	3-4	26-4411-32
26-4312-32	26-4512-32	32	B-H	2-5	26-4412-32

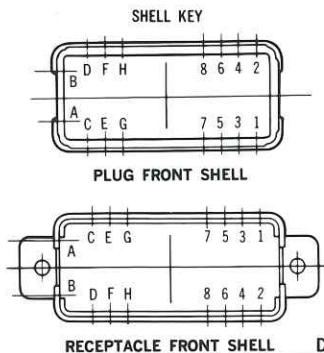
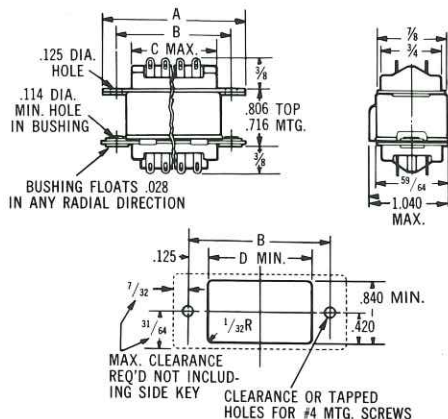
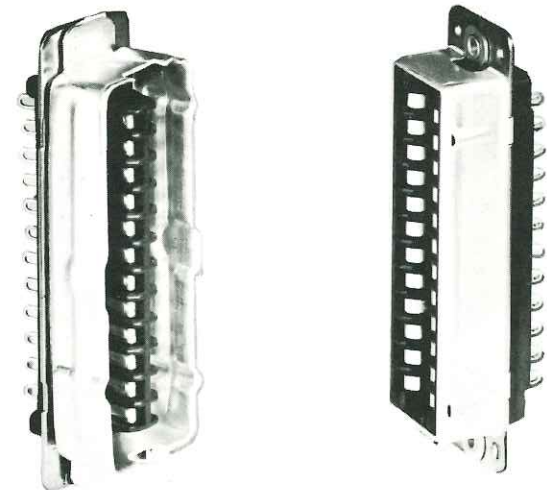


DIMENSIONS—INCHES

	A	B	C	D-Ref.		E	F	G
			Max.	4300 Series	4500 Series	Max.	2EF, 4500 Series	2EF, 4300 Series
8 contact plug & receptacle mated	1.721	1.375	1.100	1.598	1.697	.312	.438	2.059
16 contact plug & receptacle mated	2.470	2.125	1.845	1.723	1.822	.625	.500	2.246
24 contact plug & receptacle mated	3.220	2.875	2.600	1.848	1.947	.625	.500	2.371
32 contact plug & receptacle mated	3.970	3.625	3.350	1.911	2.025	.625	.500	2.434

26 SERIES—Blue Ribbon® Connectors

Barrier Polarization Type with Keyed Shells



Dimensions—Inches

	A	B	C Max.	D Min.
8 contact plug & receptacle mated	1.721	1.375	1.100	1.120
16 contact plug & receptacle mated	2.470	2.125	1.845	1.868
24 contact plug & receptacle mated	3.220	2.875	2.600	2.620
32 contact plug & receptacle mated	3.970	3.625	3.350	3.370

Connectors use barrier polarization type inserts in keyed aluminum shells. Receptacle shells have male inserts and plug shells have female inserts.

The large selection of connector sizes and shell-key combinations permits use of these connectors in multiples mounted in a single frame, with no danger of mismatching.

Note: 26-4201 and 26-4101 connectors are also furnished with mounting plates having a gold iridescent iridite finish (over cadmium-plated stainless steel), per MIL-E-5400 Specification. To order, substitute a 5 for the 4 in the part number (26-5201 and 26-5101). Another 26-4201 and 26-4101 style offers taper pin adapters for the contact tails. To get these, substitute a 6 for the 4 in the part number (26-6201 and 26-6101).

ORDERING AND AVAILABILITY INFORMATION

Plugs	Contacts	Shell Keys Letters	Shell Keys Numbers	Mating Receptacles
26-4101-8P	8	A	1	26-4201-8S
26-4102-8P	8	A	2	26-4202-8S
26-4103-8P	8	B	1	26-4203-8S
26-4104-8P	8	B	2	26-4204-8S
26-4101-16P	16	A-C	3-6	26-4201-16S
26-4102-16P	16	A-D	2-5	26-4202-16S
26-4103-16P	16	A-E	5-6	26-4203-16S
26-4104-16P	16	A-F	4-5	26-4204-16S
26-4105-16P	16	B-C	1-6	26-4205-16S
26-4106-16P	16	B-D	1-2	26-4206-16S
26-4107-16P	16	B-E	1-4	26-4207-16S
26-4108-16P	16	B-F	2-3	26-4208-16S
26-4101-24P	24	A-C	3-6	26-4201-24S
26-4102-24P	24	A-D	4-7	26-4202-24S
26-4103-24P	24	A-E	5-6	26-4203-24S
26-4104-24P	24	A-F	4-5	26-4204-24S
26-4105-24P	24	A-G	6-7	26-4205-24S
26-4106-24P	24	A-H	1-6	26-4206-24S
26-4107-24P	24	B-C	2-7	26-4207-24S
26-4108-24P	24	B-D	1-2	26-4208-24S
26-4109-24P	24	B-E	1-4	26-4209-24S
26-4110-24P	24	B-F	2-3	26-4210-24S
26-4111-24P	24	B-G	3-4	26-4211-24S
26-4112-24P	24	B-H	2-5	26-4212-24S
26-4101-32P	32	A-C	3-6	26-4201-32S
26-4102-32P	32	A-D	4-7	26-4202-32S
26-4103-32P	32	A-E	5-6	26-4203-32S
26-4104-32P	32	A-F	4-5	26-4204-32S
26-4105-32P	32	A-G	6-7	26-4205-32S
26-4106-32P	32	A-H	1-6	26-4206-32S
26-4107-32P	32	B-C	2-7	26-4207-32S
26-4108-32P	32	B-D	1-2	26-4208-32S
26-4109-32P	32	B-E	1-4	26-4209-32S
26-4110-32P	32	B-F	2-3	26-4210-32S
26-4111-32P	32	B-G	3-4	26-4211-32S
26-4112-32P	32	B-H	2-5	26-4212-32S

Circular Blue Ribbon Connectors

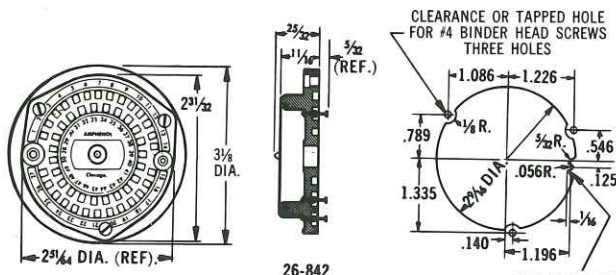
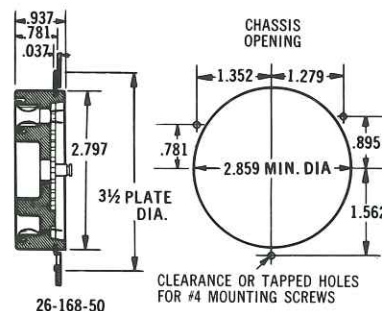
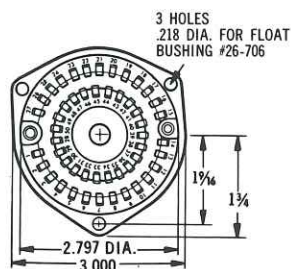
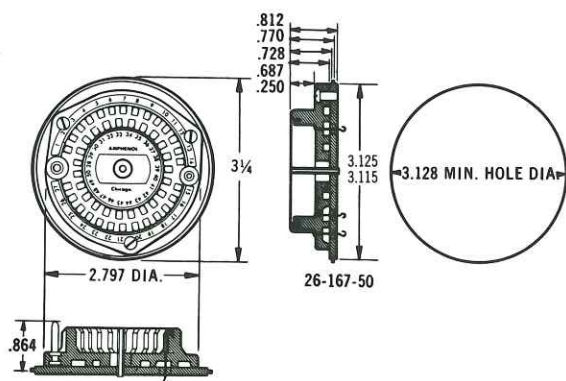
Space-saving connectors for quick and easy breaking of 50 circuits. Body diameter is less than 3 inches. Originally developed for avionic use, these mating connectors have since offered solutions to a wide variety of other limited space applications.

26-842 Plugs 26-168-50 Receptacles

Bodies are of molded diallyl phthalate and contacts are gold-plated, as on all Blue Ribbon connectors. Polarization and positive mating are achieved by dual, dissimilar guide pins and sockets, and by a center pin and bushing.

26-167-50 Plug—Hermetic Seal

Like the 26-842, but each contact has a glass bead. The glass is bonded to the seal plate under compression, the most efficient sealing method. Connectors are completely inspected and tested before shipment. This plug mates with the 26-168-50 receptacle.



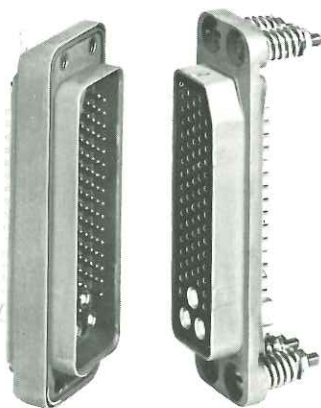
Voltage Rating: 5 AMPS { 750 Volts D.C. at Sea Level
300 Volts D.C. at 60,000 Feet Altitude

ORDERING INFORMATION

Plugs	Contacts	Mating Receptacle
26-167-50 (Hermetic Seal)	50	26-168-50
26-842	50	

THIS IS NEEDED ONLY WHEN SMALL GUIDE PIN IS USED AS GROUND

126 SERIES—CNI—Environmentally Sealed Rectangular Connectors



Completely Sealed—Readily Mated Choice of Contacts, Including Coax

Designed for use on modules which are plugged into racks on communication, navigation, and identification equipment, CNI connectors can be used in any type of rack and panel application that requires an environmental seal.

Moisture cannot be trapped in an unmated CNI connector because there are no air voids between adjacent contacts throughout the entire receptacle body and the resilient face seal is chemically bonded to the insert. Half the connector pair is spring loaded to eliminate mating difficulties from lateral variations in rack and panel structures. Spring-loading also keeps constant back-pressure on the insert.

Potting molds are supplied with each connector. A suitable potting compound will completely encapsulate the soldered connections and make them moistureproof and resistant to salt water, aircraft lubricating oil, and jet fuels.

CNI connectors come in two shell sizes with 12 different insert combinations, as shown in Ordering Information. (For other insert arrangements, consult factory.) The female contacts are hooded to prevent test probe damage. The specially designed coaxial connectors have captivated contacts accommodating RG-141/U or RG-142/U cable with a nominal impedance of 50 ohms. Special contacts are available for RG-62/U, 71B/U, 180/U, 188/U, 195/U, and 223/U cable. Contacts are available also for RG-55/U cable.

Specifications

Temperature Range: -65°C to $+85^{\circ}\text{C}$

Current Rating: 7.5 amps

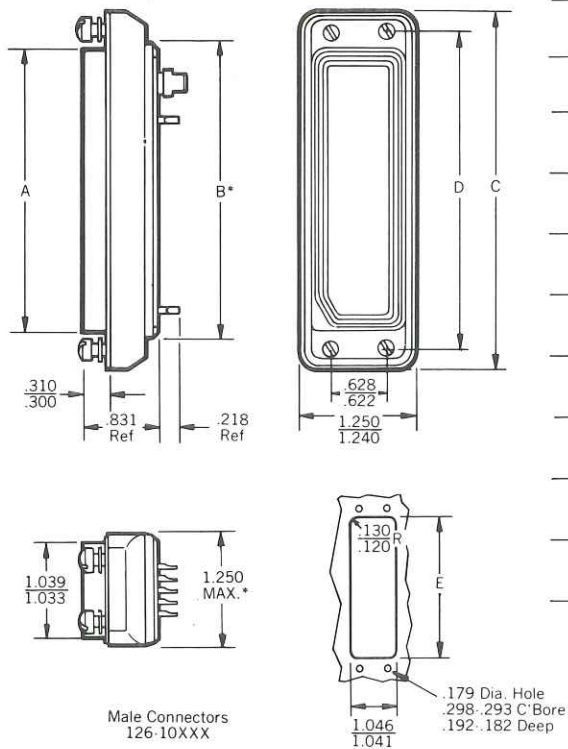
Voltage Rating: 600VDC @ 70,000' when potted

Shells: Aluminum, gold iridescent finish

Contacts: Male—SAE 72 brass; female—bronze
Both: Rhodium-over-silver plating

Dielectric: Asbestos filled diallyl phthalate

ORDERING INFORMATION

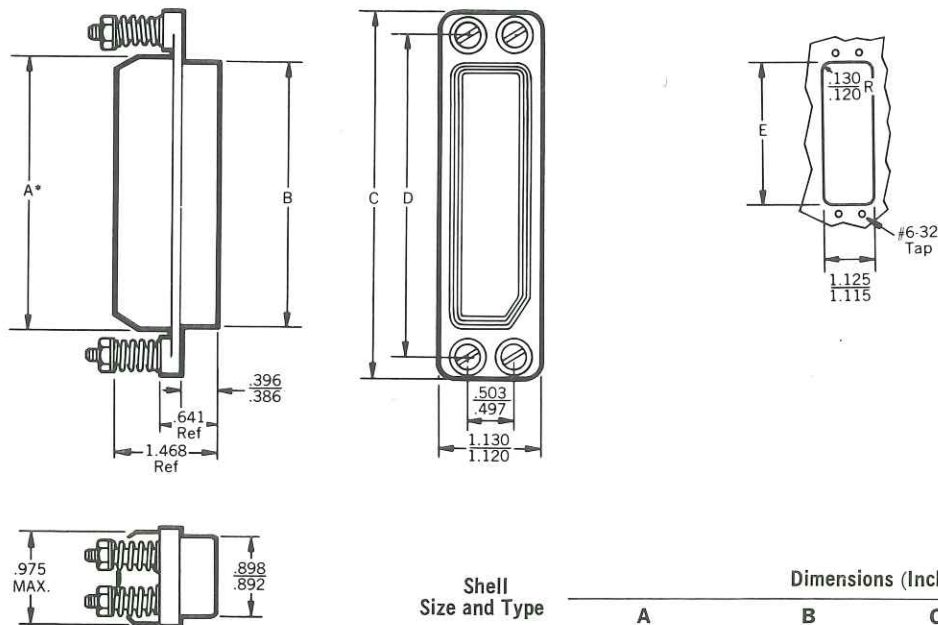


Shell Size	No. of Contacts				AMPHENOL Part Number	
	#20	#16	#12	Coax	Receptacle	Plug
A	26			2**	126-10262	126-20262
A	34	13	3	5	126-10345-1	126-20345-1
A	46	3			126-10463-1	126-20463-1
A	57			2	126-10572	126-20572
A	57		2		126-10572-3	126-20572-4
A	66				126-10660	126-20660
B	75			3	126-10753	126-20753
B	75		3		126-10753-1	126-20753-2
B	66	15			126-10753-2	126-20753-5
B	91				126-10910	126-20910
B				13	126-100013	126-200013
B				14	126-100014†	126-200014†

*Add .100 max. for thickness over potting boot.

**For RG-55B/U Coaxial Cable.

†Receptacle accommodates standard coax cables. Plug accommodates RG-71B/U or RG-62/U cable and has no springs.



Shell Size and Type	Dimensions (Inches)				
	A	B	C	D	E
A Receptacle	2.409	2.670 Max.	3.205	2.771	2.427
A Plug	2.404 Max.	2.264	3.349	2.904	2.492
B Receptacle	3.065	3.326 Max.	3.861	3.427	3.083
B Plug	3.060 Max.	2.920	3.995	3.549	3.148

126 SERIES—Standard Rectangular Connectors



Strong, Dependable, Economical 11, 15, and 20 Contacts

All 126 Series standard rectangular connectors have eyelets inserted in the mounting holes for added strength. The male contacts are molded into the insert and have holes for wiring instead of the usual hooks. To prevent accidental shorting, the connectors have interlocking barriers. They can be used for cable interconnection as well as for rack and panel mounting.

Many of the configurations can be supplied with or without the aluminum shell (housing and cable clamp), as shown. Shells with side cable outlets are available on order for inserts 126-804, 126-805, 126-806, and 126-807.

Specifications

Voltage Rating: 900V (RMS) at Sea Level

Shells: Aluminum, sand blasted

Contacts: Male—brass. Female—beryllium copper.

Both silver plated and gold flashed

Dielectric: Mica-filled phenolic

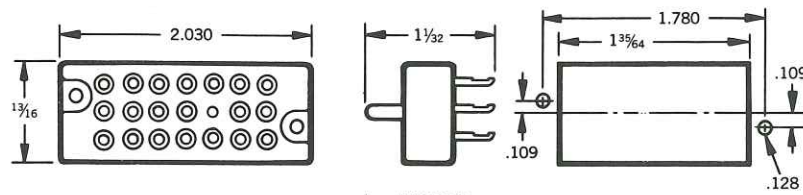
Current Rating: #20—7.5 amps; #16—13 amps; #12—23 amps

Temperature Rating: 0°C to 105°C

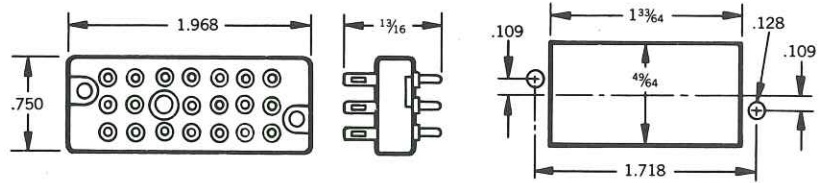
ORDERING INFORMATION

Contacts			AMPHENOL Part Number				Mounting Screw Size
#12	#16	#20	Insert w/Shell		Insert Only		
			Male	Female	Male	Female	
2	—	9	126-809	126-808	126-804	126-805	No. 4
3	—	12	126-152	126-153	126-151	126-150	No. 6
4	—	16	126-811	126-810	126-806	126-807	No. 4
—	20	—	—	—	126-813	126-812	No. 4

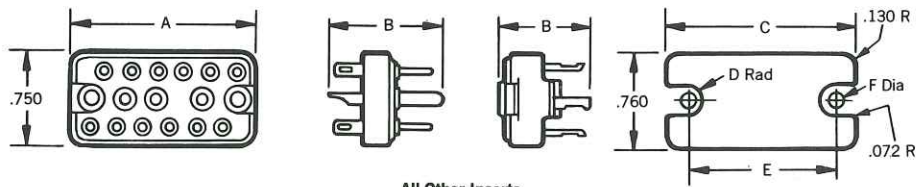
INSERTS



Insert 126-812



Insert 126-813



All Other Inserts

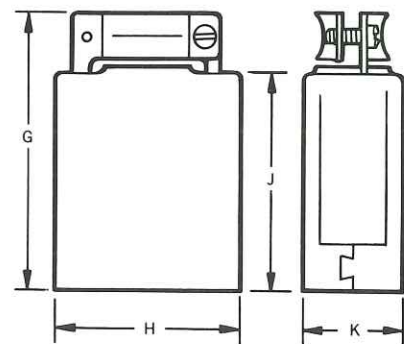
Dimensions (Inches)

Inserts	A	B	C	D	E	F
126-804	1.171	.937	1.181	.120	.864	.120
126-805	1.171	$\frac{49}{64}$	1.181	.120	.864	.120
126-151	1.500	.937	1.510	.115	1.188	.145
126-150	1.500	$\frac{49}{64}$	1.510	.115	1.188	.145
126-806	1.932	.937	1.947	.120	1.620	.120
126-807	1.937	$\frac{49}{64}$	1.947	.120	1.620	.120

SHELLS

Dimensions (Inches)

Shells	For Connector	G	H	J	K
126-946	126-809	$1\frac{3}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{55}{64}$
126-946	126-808	$1\frac{3}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{55}{64}$
126-931	126-153	$2\frac{1}{16}$	$1\frac{9}{32}$	$1\frac{19}{32}$	$\frac{55}{64}$
126-932	126-152	$2\frac{1}{16}$	$1\frac{9}{32}$	$1\frac{19}{32}$	$\frac{55}{64}$
126-954	126-811	$2\frac{1}{16}$	$2\frac{1}{64}$	$1\frac{19}{32}$	$\frac{55}{64}$
126-954	126-810	$2\frac{1}{16}$	$2\frac{1}{64}$	$1\frac{19}{32}$	$\frac{55}{64}$

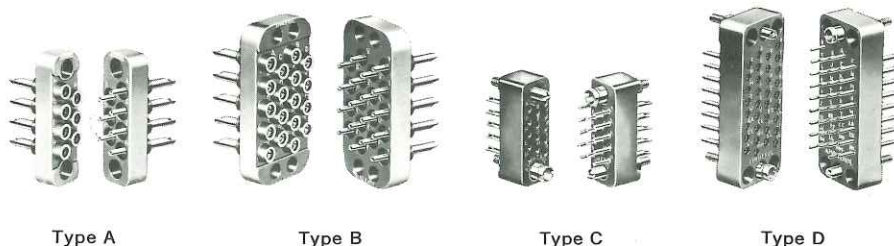


Shells

126 SERIES—Miniature Rectangular Connectors

Large Selection of Multiple Contacts For Use Inside Equipment

Wherever a circuit must be re-routed, made, or broken in the interior of equipment, 126 Series miniature rectangular connectors offer the best means for doing the job reliably and economically. The four different connector types with various contact configurations meet many diverse requirements.



ORDERING INFORMATION

Type	Contacts	AMPHENOL Part Number		DIMENSIONS (Inches)		
		Pin	Socket	A	B	C
A	7	126-016	126-017	1/2	1 5/8	1 1/4
	15	126-204	126-205	1/2	2 19/32	2 7/32
B	18	126-206	126-207	1	2	1 11/16
C *	14	126-173	126-174	7/16	1 1/4	1 5/16
	18	126-199	126-189	9/16	1 5/16	1
	21	126-171	126-172	3/8	2 1/4	1 5/16
D *	34	126-188	126-187	3/4	2	1 11/16

* Economy versions of types C and D are available without grounding and with nickel plated guide pins and guide sockets instead of gold. So order, add the suffix -381 to the regular part number.

Specifications

Current Rating: Types A & B—17 amps
Types C & D—7.5 amps

Voltage Rating: Types A & B—700V (RMS) at Sea Level
Types C & D—600V (RMS) at Sea Level

Contacts: Gold-over-silver plated

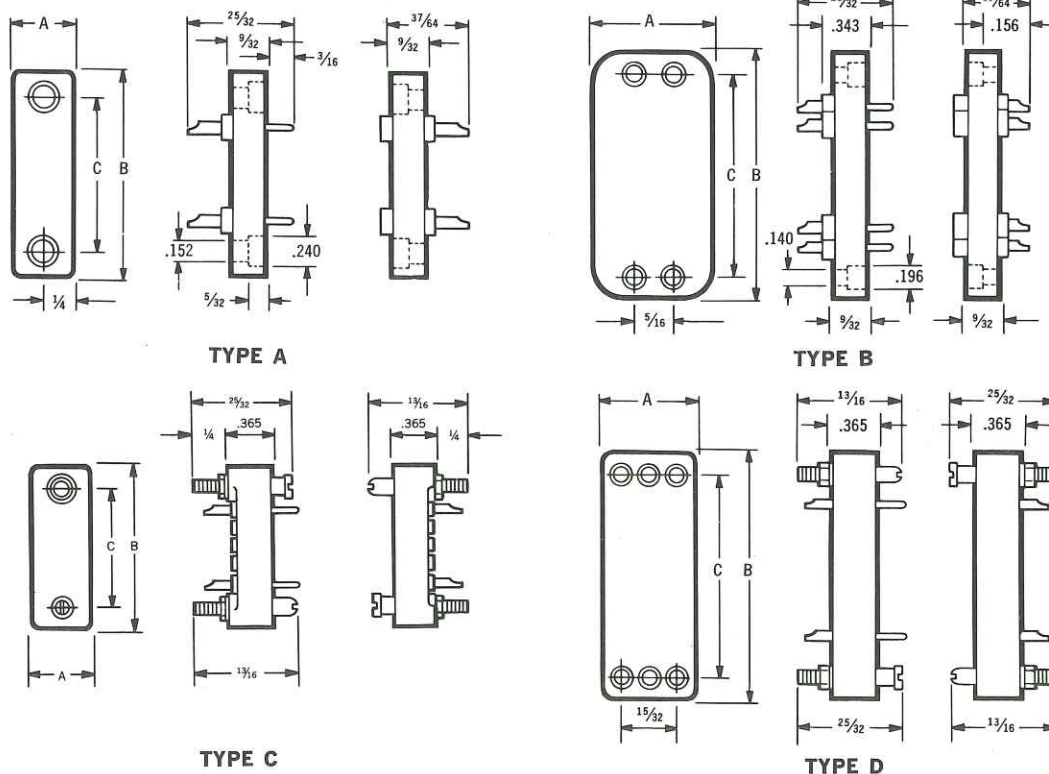
Polarizing Pins: Gold-over-silver plated

Insertion Force: 40 lb. max.

Withdrawal Force: 1 lb. min.

Dielectric: Melamine

Wire Size: Types A & B—#12 Solid,
#14 Stranded
Types C & D—#18 Solid,
#20 Stranded



Miniature Hexagonal Connectors—126 SERIES

Large Variety of Styles For Wide Range of Applications

AMPHENOL miniature hex connectors are compact in construction and light in weight. They are designed to fit many different kinds of applications.

The connectors are molded of glass-filled diallyl phthalate, with the male contacts molded into the dielectric. Since the rear hoods are also diallyl phthalate, the chances of electrical breakdown from contacts to hood are reduced.

All the contacts are size 20 (.040" dia.) except for one size 16 (.062" dia.) on the 4-contact insert. The contacts have solder pockets which will accommodate a #20 or smaller gage wire. The overall diameter of the connector is $\frac{3}{4}$ " and, when mated, its extended length to the back of the cable clamp is only $1\frac{1}{4}$ ".

The connectors are available with locking clips to prevent accidental unmating because of vibration or shock. The locking clip, engaged by a 30° twist, holds the male and female connectors in mated condition.

When the connector is mounted on a panel, a simple brass nut fastens it. To prevent rotation on the panel, the connector body is keyed as shown in the dimension drawing.

The contacts are gold plated and can be soldered without pretinning even after long storage.



Locking Clip Type,
Phenolic



Hex Nut Type



Hood and Clamp Type

Specifications

Current Rating: 7.5 amps

Voltage Rating: 500V (RMS)

60 CPS at Sea Level

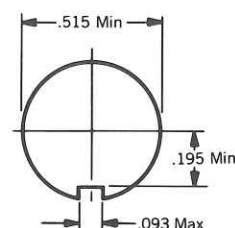
Temperature Range: -60°C to +125°C

Hardware: Solid brass, nickel-plated

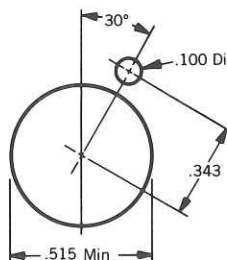
Contacts: Gold-over-silver plated

Dielectric: Diallyl Phthalate

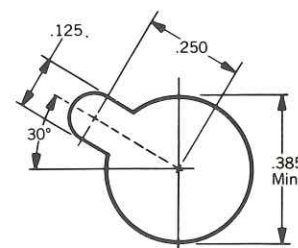
Wire Size: #20 AWG or #22 JAN-C76



Hex Nut Type
Mounting Holes



All Others

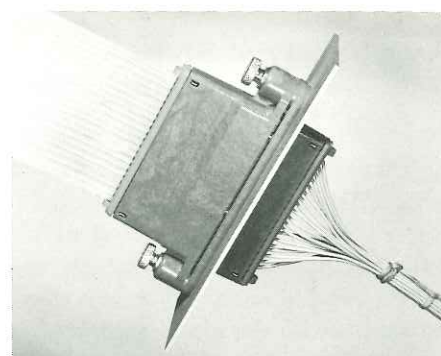
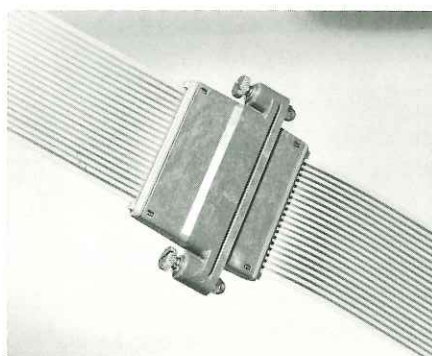
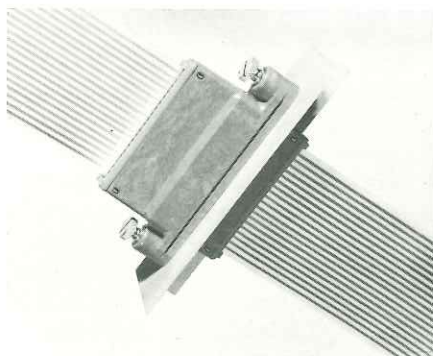


126-214 and
126-214-1001

ORDERING INFORMATION

CONTACTS	CONNECTOR LESS HEX NUT	PANEL MOUNTED CONNECTORS		PANEL MOUNTED CONNECTORS WITH LOCKING CLIP		CABLE MOUNTED CONNECTORS WITH LOCKING SLEEVE & CABLE CLAMP	CABLE MOUNTED CONNECTORS WITH LOCKING CLIPS
		With Hex Nut	With Hex Nut & Lockwasher	With Locking Clip & Hex Nut	With Locking Clip, Hex Nut & Lockwasher		For use in Cable to Cable Applications only
4 Male	126-1426	126-3813	126-3814	126-214	126-214-1001	126-214-1000*	126-214-1002*
4 Female	126-1429	126-3815	126-3816	126-215-1000	126-215-1002	126-215*	126-215-1001*
5 Male	126-1083	126-010	126-010-1000	126-216	126-216-1000	126-217	126-217-1000
5 Female	126-1085	126-011	126-011-1000	126-218	126-218-1000	126-223	126-223-1000
7 Male	126-1059	126-191	126-191-1000	126-197	126-197-1000	126-195	126-195-1002
7 Female	126-1057	126-192	126-192-1001	126-198	126-198-1003	126-196	126-196-1000
9 Male	126-1080	126-012	126-012-1000	126-219	126-219-1000	126-220	126-220-1000
9 Female	126-1082	126-013	126-013-1000	126-221	126-221-1000	126-222	126-221-1001
Connections in this column are mated pairs or will mate with connectors in Column 2.		Connectors in these columns are mated pairs or will mate with connectors in Column 1.		Connectors in these columns are not mated pairs. They mate with connectors in Column 4.		Connectors in this column are not mated pairs. They mate with connectors in Columns 3 & 5.	Connectors in this column are not mated pairs. They mate with connectors in Column 4.
						*Have no cable clamps.	*Have no cable clamps.

218 SERIES—Flex-1 Flexible Flat Cable Connectors



Reliable Flat Cable Terminations Without Skiving or Stripping

AMPHENOL Flex-1 connectors attach to flexible flat cable conductors by a simple welding process that melts the insulation at the junction point and welds the conductor directly to the contact. This produces a solid, gas-tight metal bond without stripping, skiving, or extensive exposure of the conductor. The fast, economical termination offered by Flex-1 connectors enables you to take full advantage of all the savings in cost, weight, and space offered by flexible flat cable.

The Flex-1 connector consists of a carrier with prepositioned weldable contacts, a strain relief clamp, and a housing. The carrier and clamp are contained in the housing, with two clips to lock the assembly together. Any commercial resistance type welder with heat and cycling controls can be used to weld the conductors to the contacts.

Flex-1 connectors are available as plugs, cable receptacles, and straight or right angle panel receptacles. Either half of a Flex-1 connector—plug or receptacle—can be mated with a $\frac{3}{32}$ " thick printed circuit card.



Flex-1 connectors come 2" or 3" wide with .075", .100", or .150" contact spacing, in accordance with National Aerospace Standard 729, established to standardize flexible flat cable design and production. In addition to the weldable contacts, solder eyelet contacts are also available to accommodate round wire and permit easy transition from round wire to flat cable wiring.

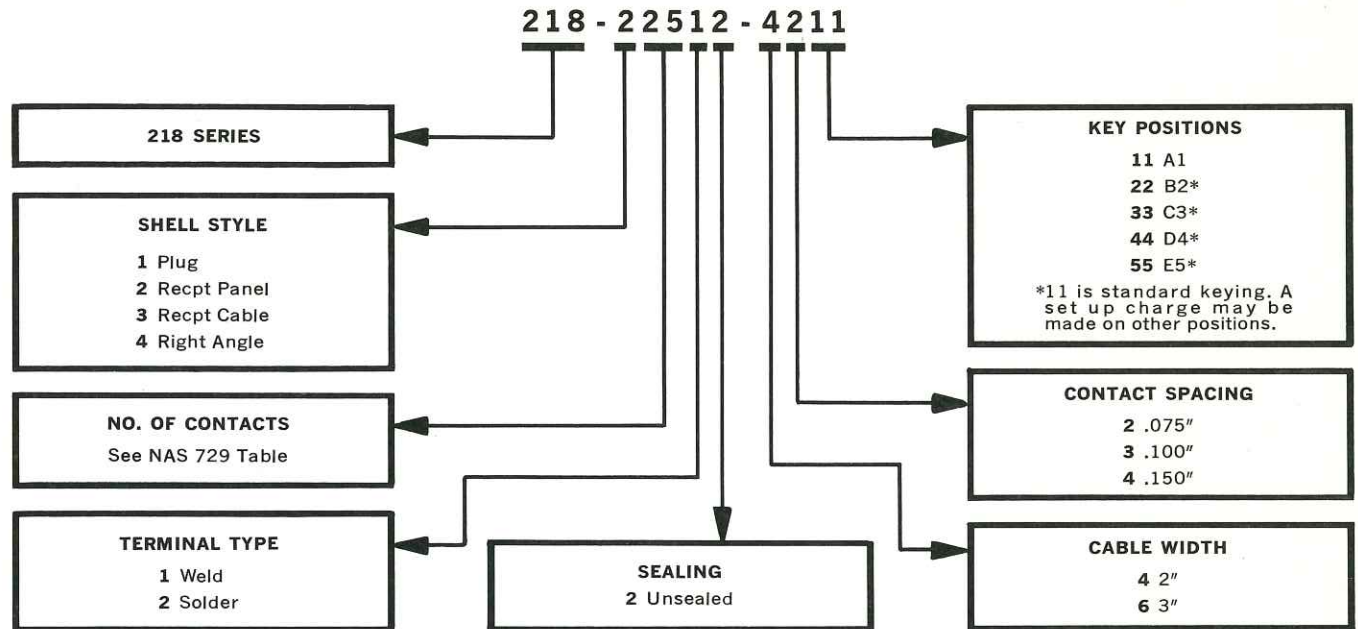
Specifications

CONNECTOR SHELL: Long glass fiber alkyd thermosetting plastic
CONTACT CARRIER: Diallyl Phthalate
CONTACTS: Beryllium copper plated gold over nickel
STRAIN RELIEF: Zytel nylon
CLIPS: Passivated stainless steel
MOUNTING SCREWS: Zinc plated brass
VOLTAGE RATING: 300 volts AC RMS at Sea Level
CURRENT RATING: 5 amperes

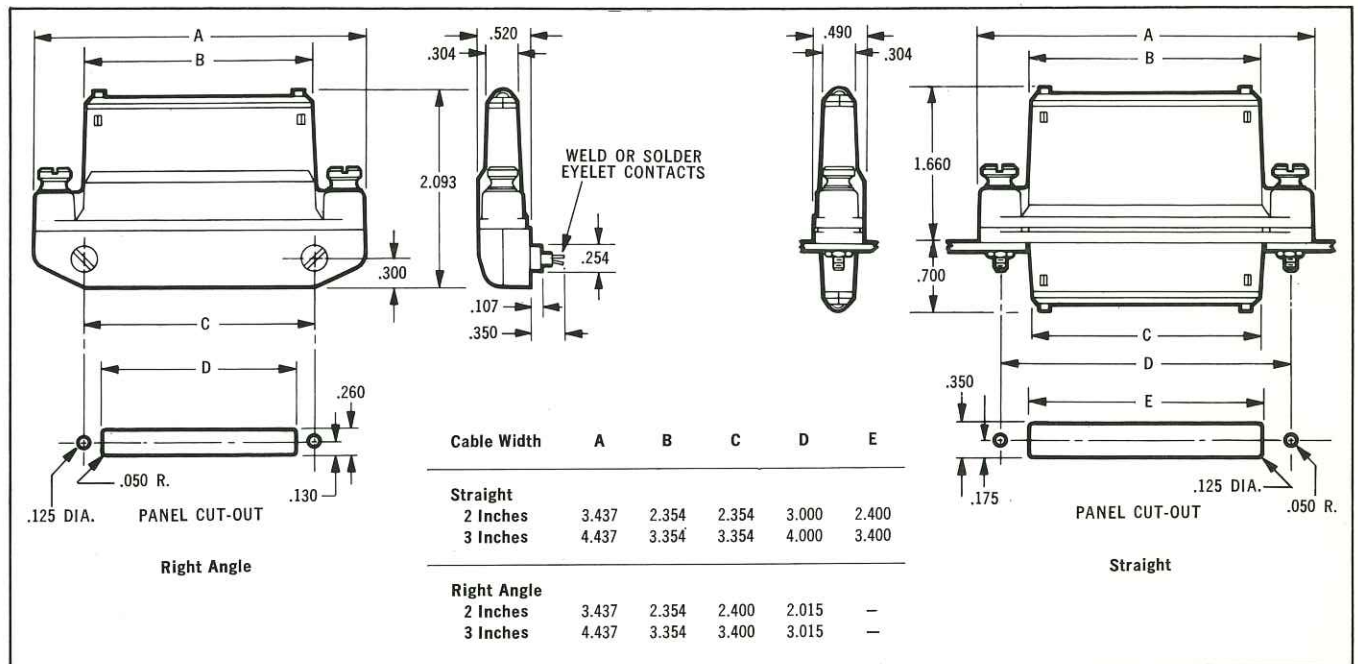
WEIGHT: 2" 19 contact approx. 2.3 oz.
TEMPERATURE RANGE: -65°C to 125°C
HIGH POTENTIAL: 1000 vrms
INSULATION RESISTANCE: 5000 megohms
THERMAL SHOCK: -55°C to 125°C, 5 cycles
PHYSICAL SHOCK: 50 g's each major axis
DURABILITY: 500 cycles of mating and unmating
VIBRATION: .06 inches 0-500 cps 20 g's, 500 to 20,000 cps

How To Order Flex-1 Connectors

To get the 218 Series connector you want, put together the part number as per the following example.



Dimensions



AMPHENOL Flex-1 connectors fit all flat cable applications—for example, this “window-shade” construction. Here, the “memory” of the plastic in the cable makes it compact and self-rewinding.



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New York	NEW YORK	District Sales Office	310 Northern Blvd., (Great Neck, L.I.)	516 482-4700
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Japan	TOKYO	Dai Ichi Denshi Kogyo, K.K., #20, 3 chome, Yoyogi, Shibuya-Ku		
W. Germany	MUNICH	Amphenol-Borg Electronics GmbH, 8024 Deisenhofen (bei München); representatives in Italy, France, Switzerland, Austria, Belgium-Luxembourg, The Netherlands and Greece		
France	PARIS (17 ^e) 39-DOLE	UMD (Usine Metallurgique Doloise, S.A.) 17 Avenue Niel 75 UMD (Usine Metallurgique Doloise, S.A.) 92 & 98 avenue de Gray		



OTHER INTERNATIONAL AREAS

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cable: Amphenol-Broadview

Amphenol Connector Division AMPHENOL CORPORATION

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